

The pro-democracy movement in Hong Kong

Chan, Heng Choon

DOI:

[10.1080/01639625.2021.1950517](https://doi.org/10.1080/01639625.2021.1950517)

License:

Creative Commons: Attribution-NonCommercial-NoDerivs (CC BY-NC-ND)

Document Version

Peer reviewed version

Citation for published version (Harvard):

Chan, HC 2022, 'The pro-democracy movement in Hong Kong: psychosocial risk factors and Hong Kongers' attitudes toward violence', *Deviant Behavior*, vol. 43, no. 10, pp. 1173-1192.
<https://doi.org/10.1080/01639625.2021.1950517>

[Link to publication on Research at Birmingham portal](#)

Publisher Rights Statement:

This is an Accepted Manuscript version of the following article, accepted for publication in *Deviant Behavior*. Heng Choon (Oliver) Chan (2022) The Pro-Democracy Movement in Hong Kong: Psychosocial Risk Factors and Hong Kongers' Attitudes toward Violence, *Deviant Behavior*, 43:10, 1173-1192, DOI: 10.1080/01639625.2021.1950517. It is deposited under the terms of the Creative Commons Attribution-NonCommercial-NoDerivatives License (<http://creativecommons.org/licenses/by-nc-nd/4.0/>), which permits non-commercial re-use, distribution, and reproduction in any medium, provided the original work is properly cited, and is not altered, transformed, or built upon in any way.

General rights

Unless a licence is specified above, all rights (including copyright and moral rights) in this document are retained by the authors and/or the copyright holders. The express permission of the copyright holder must be obtained for any use of this material other than for purposes permitted by law.

- Users may freely distribute the URL that is used to identify this publication.
- Users may download and/or print one copy of the publication from the University of Birmingham research portal for the purpose of private study or non-commercial research.
- User may use extracts from the document in line with the concept of 'fair dealing' under the Copyright, Designs and Patents Act 1988 (?)
- Users may not further distribute the material nor use it for the purposes of commercial gain.

Where a licence is displayed above, please note the terms and conditions of the licence govern your use of this document.

When citing, please reference the published version.

Take down policy

While the University of Birmingham exercises care and attention in making items available there are rare occasions when an item has been uploaded in error or has been deemed to be commercially or otherwise sensitive.

If you believe that this is the case for this document, please contact UBIRA@lists.bham.ac.uk providing details and we will remove access to the work immediately and investigate.

Running head: HONG KONGERS' ATTITUDES TOWARD VIOLENCE

The Pro-Democracy Movement in Hong Kong:
Psychosocial Risk Factors and Hong Kongers' Attitudes toward Violence

Heng Choon (Oliver) Chan, Ph.D.¹

Teaching Laboratory for Forensics and Criminology, Department of Social and Behavioral
Sciences, City University of Hong Kong, Hong Kong, SAR

Acknowledgment: This research project (Project Number: SR2020.A1.027) is funded by the special round of the Public Policy Research Funding Scheme from the Policy Innovation and Co-ordination Office of The Government of the Hong Kong Special Administrative Region.

¹ Heng Choon (Oliver) Chan, Ph.D., Associate Professor of Criminology, Teaching Laboratory for Forensics and Criminology, Department of Social and Behavioral Sciences, City University of Hong Kong, Kowloon, Hong Kong, S.A.R. Tel: (+852) 3442-9223. E-mail: ohcchan@cityu.edu.hk (corresponding author)

The Pro-Democracy Movement in Hong Kong:
Psychosocial Risk Factors and Hong Kongers' Attitudes toward Violence

ABSTRACT

Since early June 2019, Hong Kong has been experiencing ongoing social unrest in response to the anti-extradition bill. These demonstrations and rallies have often ended with violent clashes between protestors and the police. Moreover, the frequent mass demonstrations that initially focused on the bill have since evolved into pro-democracy protests directed at the government and the police. This phenomenon may be associated with a growing acceptance of violence and with individuals' pro-violence attitudes. The literature has shown that those who hold pro-violence attitudes are more likely to engage in criminal and violent activities. Using a sample of 1,024 Hong Kong adults ($M_{age} = 29.15$, age range = 18-69, 66.4% females), this cross-sectional study explores the psychosocial risk factors (i.e., deviant behavior learning, positive and negative affect, general mental health, self-control, and social bonds) underlying favorable attitudes toward violence among Hong Kongers during this period of social turmoil. Grounded in the theoretical propositions of mainstream criminology (i.e., social learning, routine activity, general strain, self-control, and social control), our findings show that female participants generally report stronger attitudes toward violence than male participants. Multivariate analyses indicate that increased positive and negative affect, stronger social bonds, and reduced self-control are significant risk factors for holding pro-violence attitudes. These findings have important research and practical implications in the areas such as public education and policy development/refinement, with the primary aim to reduce the likelihood of holding pro-violence attitudes that may prevent future escalations into actual violence.

Keywords: Attitudes toward violence, pro-violence attitudes, positive attitudes toward violence, psychosocial risk factor, Hong Kong

The Pro-Democracy Movement in Hong Kong:
Psychosocial Risk Factors and Hong Kongers' Attitudes toward Violence

INTRODUCTION

The semi-autonomous city of Hong Kong is home to a modern Chinese society and one of the major financial hubs in the Asia-Pacific region. Hong Kong has been a special administrative region (SAR) of the People's Republic of China (PRC) since July 1, 1997, and approximately 95% of the population is of Chinese descent. Prior to that, Hong Kong had been a British colony since 1842. Therefore, the more than 150 years of Western colonial rule are likely to have had a substantial influence on the daily lives of Hong Kongers, particularly the younger generations. Hong Kongers generally balance their modern Western lifestyle with traditional Chinese cultural values and practices. Similar to many former British colonies, the Hong Kong criminal justice system is based on the U.K. common law system, which places a strong emphasis on the rule of law and due process (Chan, 2016).

Since early June 2019, there have been mass demonstrations in Hong Kong that have veered between peaceful rallies and violent clashes between police and protestors. The social unrest was initially focused on a bill that would have made it easier to extradite Hong Kongers to mainland China. The Fugitive Offenders and Mutual Legal Assistance in Criminal Matter Legislation (Amendment) Bill 2019 (*a.k.a.* the extradition bill) was proposed by the Hong Kong government in February 2019, which was sparked by an incident where a young Hong Kong male who had murdered his girlfriend while in Taiwan.¹ The pervasive public criticism of the bill culminated in incidents such as regular large-scale demonstrations, rallies, sit-ins, and general strikes throughout Hong Kong. The unrest occurred over a period of nearly seven

¹The bill aims to amend the Fugitive Offenders Ordinance (Cap. 503) with respect to special surrender arrangements not previously covered by legislation and to amend the Mutual Legal Assistance in Criminal Matters Ordinance (Cap. 525) by permitting mutual legal assistance arrangements between Hong Kong and other jurisdictions, including the PRC (Legislative Council of Hong Kong, 2019).

months until late January 2020, when the COVID-19 pandemic began to affect the routines of Hong Kongers. Even during the early pandemic period (first half of 2020), small-scale (illegal) protests and rallies (e.g., lunchtime rallies and weekend protests) continue to occur sporadically. These demonstrations and rallies have often ended with violent clashes between a small number of protestors and the police, criticized for their excessive use of force. This situation was subsequently exacerbated after the enactment of the Hong Kong National Security Law, which took effect on July 1, 2020,² the 23rd anniversary of Hong Kong's return to the PRC. Since then, public anger has been directed not only at the government but also the police.

The initially peaceful demonstrations and rallies increasingly deteriorated into violent protests and social unrest. This transition can arguably be perceived to represent a growing acceptance of violence and suggests that some of the protestors hold positive attitudes toward violence (or pro-violence attitudes). The literature has consistently demonstrated that individuals who hold pro-violence attitudes are more inclined to engage in subsequent violent and criminal activities (Badenes-Ribera et al., 2019; Chan, 2019b; Chan et al., 2016; Chui & Chan, 2012a, 2013; Flood & Pease, 2009). For instance, individuals who hold adversarial attitudes (e.g., homophobia, racism, Islamophobia) toward specific groups of individuals are more likely to perpetrate violence against these groups (Hopkins, 2016). Studies have also noted a link between pro-violence attitudes and the perpetration of actual violence, especially among children and adolescents (Chan, 2021a; Funk et al., 1999). Moreover, Petty and Cacioppo (1981) claimed that the likelihood of engaging in specific types of violent behavior (e.g., physical assault, fire-setting) can be predicted by an individual's attitudes toward such behavior. Pro-violence attitudes have also been identified as components of well-developed

² The law was enacted primarily to (1) ensure the resolute, full, and faithful implementation of the policy of One Country, Two Systems; (2) safeguard national security; (3) prevent, suppress, and impose punishment for the offenses of secession, subversion, organization, and perpetration of terrorist activities, and collusion with a foreign country or with external elements to endanger national security; (4) maintain the prosperity and stability of Hong Kong; and (5) protect the lawful rights and interests of Hong Kong residents.

networks of violence-related knowledge structures (e.g., mental scripts and schemas), affects, and reflexive motor responses (Anderson & Bushman, 2002; Epps & Kendall, 1995). However, it remains unknown as to what might be the risk factors of Hong Kongers' attitudes toward violence during the recent period of social turmoil warrant further analysis. This is a gap in the literature to be filled. Hence, it is especially important to explore the psychosocial risk factors that underlie favorable attitudes toward violence, which may have important practical implications in terms of public education and policy initiatives aimed at reducing the prevalence of pro-violence attitudes. In addition to advancing our knowledge on this topic, timely and effective intervention is essential to prevent the escalation of pro-violence attitudes and their manifestation in actual acts of violence.

THEORETICAL BACKGROUND

Numerous theoretical approaches have been developed to explain offending behavior. A number of mainstream criminological theories have been widely applied to understand the drivers of criminal behavior, especially in relation to violent offending and pro-violence attitudes. For example, the behavioral learning approach, as illustrated by Sutherland's (1947) differential association theory and Akers's (1985) social learning theory, hypothesizes that deviant and violent attitudes and behavior are learned through close social interaction with family and peers, and manifest as reinforcement and reward or punishment. According to Akers (1997), differential reinforcement and punishment refer to the net balance of anticipated social (e.g., verbal approval, financial rewards) and/or nonsocial (e.g., psychophysiological effects of a stimulant) rewards and costs associated with different types of behavior. From this perspective, the presence of tangible (e.g., monetary return) and intangible (e.g., prestige, group status) incentives increases the propensity to engage in violent behavior. Moreover, Bandura (1973) identified the imitation of observed behavior as a key process in behavioral learning. The probability of an individual learning an observed behavior and adopting the related

attitudes increases when he/she expects incentives. However, the impact of such exposure varies widely according to the frequency, duration, intensity, and priority of different associations (Akers, 1998). Specifically, deviant peer influence is a widely tested correlate in the learning approach and is frequently found to be a significant predictor of offending and violent behavior (Chan, 2019b, 2021a; Schreck et al., 2004; Taylor et al., 2007). The learning approach also partly explains the cycle of violence and maltreatment, in which past violent victimization increases the risk of future violent offending (Widom & Maxfield, 2001). Hence, it is reasonable to argue that those who have experienced past violent victimization are more likely to adopt pro-violence attitudes. Moreover, Warr (2002) asserted that although primary social groups (e.g., family, peers) tend to have a greater influence on the behavioral learning process, secondary and reference groups (e.g., the education system, colleagues and work groups, the mass media, the Internet, and computer and mobile games) can play an equally important role in providing normative definitions (e.g., attitudes, beliefs, values, and norms) in the learning process.

Studies have also used individuals' routine activities and lifestyle choices to explain their personal tendencies to adopt deviant attitudes and engage in criminality. The routine activity theory of Cohen and Felson (1979) proposes that the likelihood of an offense occurring is generally influenced by the spatial and temporal convergence of three main elements of an individual's daily routine: (1) a motivated or potential offender, (2) an attractive and suitable target, and (3) an ineffective or absent guardian capable of protecting against a violation. The lack of any one of these elements reduces the probability of a potential crime occurring (Felson & Cohen, 1980). Although this theory was initially developed to explain victimization, it has since been extended to explain offending behavior, suggesting that those who engage in such behavior are often extensively involved in "unstructured socializing" with individuals who engage in offending (e.g., deviant peers). This deviant socialization can thus increase the

likelihood of such individuals subsequently adopting pro-violence attitudes and engaging in offending behavior, regardless of their criminal tendencies (Chan, 2019b; Osgood et al., 1996).

Past studies have consistently found support for the significant effect of deviant peer influence on the individual's tendency to adopt deviant attitudes and to engage in deviant and offending behavior (e.g., Chan, 2021a; Cheung, 1997; Hoeben et al., 2016; McMillan et al., 2018; Ngai & Cheung, 2005; Ngai et al., 2007; Walter, 2017). A qualitative review of 26 studies by McCoy and colleagues (2019) reported that nearly all studies (except two studies) found that males appear to be more susceptible to deviant peer influences compared to females. Although most of the studies found that peer delinquency was most strongly associated with deviant and offending behavior for males than for females (e.g., Piquero et al., 2005; Suls & Green, 2003), there are also some studies that found the effect of deviant peers on delinquency was equivalent for both sexes (e.g., Hartjen & Priyadarsini, 2003; Weerman & Hoeve, 2012).

The positive relationship between an individual's temperament and pro-violence attitudes and behavior has been noted in the literature. General strain theory (Agnew, 2002) postulates that experiences of strain (e.g., stressors) may interact with other personality characteristics to intensify the risk of an individual adopting and exhibiting maladaptive attitudes and behavior (e.g., criminal activities, aggression, and violence). This type of behavior can serve as a coping response to adverse incidents, conditions, or treatment. Specifically, negative affect (e.g., anger, depression) acts as a stimulus for action that can lead an individual to progress from strain to offending and violent attitudes and behavior (Agnew, 1992). Exposure to strain may also produce negative emotions (e.g., frustration) that encourage corrective action, through which the individual seeks to attack, damage, or seek revenge on the presumed sources of the strain (Agnew et al., 2002). Similarly, the social interactionist approach (Felson, 1992) posits that resentment, aggression, and the desire for revenge can

generate a cycle of violence and retaliation, especially given that retaliation is likely to cause an escalation of violence (Silver et al., 2011).

Studies have consistently demonstrated that different types of strain and their conditions have significant effects on males and females' tendency to adopt and engage in deviant attitudes and behavior (e.g., Reid & Piquero, 2016; Scott & Mikell, 2019). Consistent with the theory, males and females tend to experience different strains and different positive or negative emotions in response to delinquency and criminal offending. Moon and Morash (2017) found that strains that males experience more than females were significantly related to violent and property offending, while females tended to experience strain that may related to their status offending. Broidy and Agnew (1997) reasoned this difference to different gender socialization between males and females where the learning and internalization of the normative social rules, roles, and customs associated with males and females are inherently different.

Self-control theory (a.k.a. the general theory of crime) is regarded as one of the most tested and well-supported explanations of criminal and violent behavior (Gottfredson, 2009). Gottfredson and Hirschi (1990) hypothesized that individuals with low self-control are more inclined to have positive attitudes toward violence and to engage in offending and violent activities in search of immediate gratification, without considering the potential consequences. Those with low self-control are likely to manifest the six core characteristics of impulsivity, risk-seeking, self-centeredness, short temper, and preferences for simple rather than complex tasks and physical rather than mental activities (Chan, 2020; Muraven et al., 2006). The developmental background of these individuals is characterized by early criminogenic exposure that prevents them from developing sufficient self-control. Hirschi and Gottfredson (1994) argued that this personality trait, formed between the ages of 6 and 10, is likely to remain extremely stable over one's life and across individuals, irrespective of their demographic characteristics such as age, gender, culture, and social class (Vazsonyi & Klanksek, 2008).

Low self-control has been consistently found to be a significant predictor of deviant attitudes (e.g., pro-violence) and behavior (e.g., delinquency, offending) in recent studies (e.g., Chan, 2021a; Cooper et al., 2017; McNeely et al., 2018). In terms of sex differences in self-control, recent criminological studies generally demonstrated that males were found to have significant lower self-control than females (e.g., Chan, 2021a, 2021c; Chiesi et al., 2020; Chui & Chan, 2016; Steketee et al., 2013). In a meta-analysis of 102 studies, de Ridder and colleagues (2012) similarly found that the relationship between trait self-control and undesirable behaviors was greater for males than for females.

In contrast, Hirschi's (1969) social control theory (a.k.a. social bonding theory) posits that deviance or crime occurs as a result of weak social bonds. Individuals with stronger social bonds to conventional society (e.g., parents, prosocial peers, and schools) are less inclined to engage in criminal and violent activities. The four main elements of this theory are attachment, commitment, involvement, and belief. Attachment refers to the affective and emotional ties to parents, peers, and school. Commitment is defined as an individual's investment in conventional behavior, including the willingness to do what is promised and respect the expectations of others regarding carrying out one's promises. Involvement refers to active participation in prosocial activities (e.g., sports, religious practices, and community services), and belief is described as recognition of the moral validity of societal regulations and norms. These four types of social bonds are strongly correlated, and their combined effect can be stronger than their individual effects. For instance, prosocial attachments and commitments to prosocial others and activities are likely to strengthen an individual's morality and belief, which may reduce the likelihood of the individual engaging in criminal activities and adopting deviant attitudes (Laundra et al., 2002). Hence, individuals with stronger social bonds are less likely to hold pro-violence attitudes than those with weaker social bonds.

Mixed findings were found concerning the effect of social bonds on male and female delinquency and offending. Although females were generally found to have stronger social bonds than males (e.g., Chan, 2021a, 2021c), some studies suggest that social bonds operate similarly across sexes (e.g., Hartjen & Priyadarsini, 2003; Huebner & Betts, 2002). A meta-analysis of 74 studies by Hoeve and colleagues (2012) reported that poor bonding to parents in general similarly explain delinquency in both males and females. Nevertheless, some studies noted that the dimensions of social bonding were not only sex-specific, but also varied across different types of delinquent and criminal acts (e.g., Chui & Chan, 2012b; Church et al., 2009; Mason & Windle, 2002). De Li and MacKenzie (2003) and Kobayashi and Fukushima (2012) also noted that sex differences may also be attributed to different developmental processes experienced by males and females in terms of types of social control at different stages of their development (e.g., gender role expectation and socialization).

THE PRESENT STUDY

This study aims to test a number of mainstream theoretical principles and concepts to explore the psychosocial risk factors [i.e., deviant behavior learning (social learning theory and routine activities theory), positive and negative affect (general strain theory), general mental health (general strain theory), self-control (self-control theory), and social bonds (social control theory)] that are associated with attitudes toward violence in a large sample of Hong Kongers. In addition to the participants' demographic characteristics (i.e., age, sex, religiosity, marital status, and political inclination), these psychosocial risk factors were also examined while controlling for the participants' perceptions of justice (i.e., procedural and distributive justice, satisfaction with police services, and public trust in the government). Tyler's (1990) procedural justice model is a widely tested framework on people's perception of police legitimacy. The procedural justice is simply how people perceive the police to be following fair and equitable procedures in both their decision-making and their behavior during police-citizen interactions,

while the distributive justice is broadly referred to the perceived fairness of the distribution of police services. Both perceived procedural and distributive justice promote overall police legitimacy, which in turn enhances legal compliance and cooperation with the police (Tyler, 2006). In this study, general research questions: “What are the risk factors of Hong Kongers’ attitudes toward violence during the recent period of social turmoil?” and “Are there any significant sex differences in risk factors?” were put forward. More importantly, in addition to filling a theoretical gap on the applicability of criminological concepts in Chinese society, the findings of this study can inform practitioners, such as public educators and policy developers by identifying significant psychosocial risk factors that are associated with the tendency to hold favorable attitudes toward violence. Timely and effective interventions in the form of pragmatic precautionary measures are essential to reduce the potential for violence among members of the pro-democracy movement in Hong Kong, and thus ensure public safety, socio-economic development, and social stability. Drawing on the literature, the following research hypotheses are proposed.

Hypothesis 1: There are sex differences in the mean levels of psychosocial risk factors (i.e., deviant behavior learning, positive and negative affect, general mental health, self-control, and social bonds) and perceptions of justice (i.e., general, procedural, and distributive justice, satisfaction with police services, and public trust in the government).

Hypothesis 2: Psychosocial risk factors are associated with Hong Kongers’ attitudes toward violence, even when controlling for their demographic characteristics (i.e., age, sex, religiosity, marital status, and political inclination) and perceptions of justice, in that high levels of deviant behavior learning and positive and negative affect, and low levels of

general mental health, self-control, and social bonds are associated with pro-violence attitudes.

METHODS

Participants and Procedure

The participants recruited for this study were Hong Kong residents who were at least 18 years old, and had remained in Hong Kong during most of the period of social unrest in the second half of 2019. The participants were recruited from different populations to ensure that they were as representative as possible. The first group of participants was recruited from different secondary and post-secondary institutions (e.g., universities) in Hong Kong (n = 483). The secondary schools were geographically stratified (i.e., Hong Kong Island, Kowloon Peninsula, and the New Territories), with one school from each region was randomly selected through the use of computerized random selection. Only participants who were at least 18 years old were recruited. Participants from post-secondary institutions were largely drawn from students at eight public (i.e., government funded) and two private universities in Hong Kong. Participants were recruited either within university compounds (e.g., libraries, common areas, reading corners, and student cafeterias) or through different academic courses with prior consent from the relevant instructors. The second pool of participants consisted of Hong Kongers who were not attending any educational institution at the time of the data collection (e.g., working adults, housewives, retirees, and the unemployed) (n = 541). It should be noted that some might have previously attended secondary and/or post-secondary institutions. Randomly stratified sampling was used to ensure the representativeness of this group of participants. For instance, an equal number of middle-to-high and low-income communities in different districts were sampled (via the use of the District Profiles in Hong Kong Census 2016 [<https://www.byensus2016.gov.hk/en/bc-dp.html>]). The participants were recruited from public and private housing, and community service centers (e.g., through flyer distribution,

word-of-mouth, and personal network of contacts with nongovernment organizations). Paper-and-pen and online (i.e., Qualtrics Survey) questionnaires were administered to the participants upon receiving their informed consent. Participants were given the option to either complete the paper-and-pen (about 20%) or online (about 80%) questionnaire. Their participation in this study was completely voluntary, and they were ensured that their anonymous responses would only be used for research purposes. The participants took an average of 25 minutes to complete the questionnaire. The rate of successful responses to the questionnaire survey was approximately 90%.

One thousand and twenty-four valid questionnaires were collected, with 66.4% of the respondents being female and the remaining 33.6% being male. On average, the participants were 29.15 years old ($SD = 9.28$), with no significant sex difference (males: $M = 29.66$, $SD = 9.62$, females: $M = 28.89$, $SD = 9.10$). More than three quarters (77.7%) of the participants were adults aged 18 to 35, with the large majority (87.7%) being from Hong Kong. Just over half (59.7%) of the participants reported that they were currently not single, nearly two thirds (63.6%) had no religious affiliation, and about three quarters (74.6%) had post-secondary education. The majority of the participants declared that they supported either the pro-democracy or pro-independence/radical democracy political camp (76.2%) and proclaimed themselves to be Hong Kong citizens (89.5%). Just over half were full-time workers (54.5%) and earned at least HK\$30,000 monthly household income (53.3%), with only a minority (16.4%) reporting that their family received some kind of social welfare assistance. Self-reported police arrest (3.8%) and conviction (1.8%) were not common among the participants.

INSERT TABLE 1 ABOUT HERE

Measures

English and Chinese versions of the questionnaire were prepared to accommodate the different language abilities of the participants. Many of the measures used in this study were

previously translated and validated, with only two measures that required translation (i.e., Attitudes Toward Violence Scale and Perceptions of General Justice Scale). To accommodate the language needs of the local Chinese participants, the scales were first translated from English by an academically qualified and experienced English-to-Chinese translator hired as a research assistant for the research project. The traditional Chinese translated measures were then back-translated to English to ensure face validity, and the back-translation was compared with the original English scales to ascertain their content similarity. A pilot study was conducted with 20 participants prior to the actual data collection. To facilitate easier comprehension, several Chinese translated items were revised.

Attitudes Toward Violence Scale

The attitudes toward violence scale (ATVS) developed by Funk et al. (1999) was used to measure the participants' attitudes toward violence. All 15 items reflect attitudes strongly associated with violent behavior. The items were measured on a 5-point Likert-type scale (1 = *strongly disagree*, 5 = *strongly agree*), with the total scores ranging from 15 to 75. A higher score indicates a greater acceptance of violence. Sample items include "It's okay to use violence to get what you want" and "If a person hits you, you should hit them back." Cronbach's α for the ATVS in this study was 0.87 (men = 0.87, women = 0.87).

Deviant Behavior Learning Scale

To measure the extent to which the participants engaged in violent behavior by learning from or being associated with bad role models (e.g., parents, family members, and deviant peers), 11 questions asked whether their parents, family members, or peers had engaged in various types of violent behavior (i.e., sexual and nonsexual) during the past 12 months (Maldonado-Molina et al., 2010; Posick, 2013). This scale has been used in recent studies conducted in Hong Kong (Chan, 2019a, 2019b, 2021a). The items were measured on a 4-point Likert scale (0 = *no experience*, 1 = *heard about*, 2 = *seen*, 3 = *experienced*), with a higher

score indicating a greater influence on deviant behavior learning. The total scores ranged from 0 to 33. Sample items include “Threatened (or was threatened by someone) with serious physical harm” and “Sexually assaulted, molested, or raped.” The internal consistency of this measure was 0.89 (men = 0.91, women = 0.88).

Positive and Negative Affect Schedule

The positive affect (PA) and negative affect (NA) subscales of the 20-item positive and negative affect schedule (PANAS; Watson et al., 1988) were used to measure the participants' positive and negative emotions based on common mood descriptors. This scale has been validated in Chinese and used in previous studies with Hong Kong samples, with acceptable internal consistency (> 0.70 ; e.g., Chan & Chui, 2012a; Chui & Chan, 2013). The items were measured on a 5-point Likert format (1 = *very slightly/not at all*, 5 = *extremely*), with the PA and NA subscales each consisting of 10 items that allowed the participants to rate their affective feeling. The total scores ranged from 10 to 50 for each subscale, with higher PA and NA scores indicating higher positive and negative affective feelings. Sample items include “Distressed,” “Irritable,” “Determined,” and “Excited.” In this study, Cronbach's α for the PANAS was 0.92 (men = 0.92, women = 0.92), with 0.90 for the PA subscale (men = 0.91, women = 0.89) and 0.92 for the NA subscale (men = 0.93, women = 0.92).

General Health Questionnaire

The 12-item general health questionnaire (GHQ-12; Bank et al., 1980) was used to assess the participants' overall mental health in the last 12 months. The Chinese validated GHQ-12 was used (e.g., Ip & Martin, 2006; Li et al., 2009). The GHQ-12 was assessed using a dichotomous response format (0 = *no*, 1 = *yes*), with a total score of 12 points. A higher score denotes greater positive general mental health. Sample items include “Felt capable of making decisions about things” and “Been able to enjoy your normal day-to-day activities.” Cronbach's alpha for this measure was 0.70 (men = 0.70, women = 0.70).

Low Self-Control Scale

The 23-item low self-control scale (LSCS; Grasmick et al., 1993) was used to assess the participants' levels of self-control. Based on Gottfredson and Hirschi's (1990) self-control theory, the LSCS was developed to measure the six original elements of self-control (i.e., impulsivity, volatile temper, self-centeredness, risk-seeking, preference for simple tasks, and preference for physical activities) that are commonly considered indicators of low self-control. This scale has been validated in Chinese and used in studies involving Hong Kong and Macanese samples, with acceptable Cronbach's α values (> 0.70 ; e.g., Chan, 2021a; Chan & Chui, 2017). The items were measured on a 4-point Likert scale (1 = *strongly agree*, 4 = *strongly disagree*), with the total scores ranging from 23 to 92. A higher score denotes greater self-control. Sample items include "I always do whatever brings me pleasure here and now, even at the cost of some distant goal" and "Sometimes I will take a risk just for the fun of it." The alpha coefficient for the LSCS was 0.89 (men = 0.91, women = 0.89).

Social Bonding Scale

Based on Hirschi's (1969) social control theory, Chapple et al. (2005) developed the 18-item social bonding scale (SBC) to assess participants' conventional ties and attachments to their parents, peers, school, and society in general. Attachment to parents was measured by two latent variables (i.e., parental dependence and parental bonding), and the items were measured on 4-point (1 = *never*, 4 = *many times*; two items) and 5-point (1 = *strongly disagree*, 5 = *strongly agree*; 16 items) Likert scales. This scale has been Chinese-validated and adopted in studies of Hong Kong and Macanese samples, with good internal consistency (> 0.70 ; e.g., Chan, 2021a; Chan & Chui, 2013, 2015). The total scores ranged from 18 to 38, with higher scores indicating stronger social bonds. Sample items include "I would like to be the kind of person my best friend is" and "I share my thoughts and feelings with my mother/father." In this study, the internal consistency of the SBC was 0.73 (men = 0.73, women = 0.73).

Perceptions of General Justice Scale

A scale comprising seven items was used to assess the participants' perceptions of general justice. The instrument consisted of four subscales measuring procedural and distributive justice, satisfaction with police services, and public trust in the government. The items were measured on a 5-point Likert scale (0 = *strongly disagree*, 4 = *strongly agree*), with the total scores ranging from 0 to 28 points. Based on Tyler's (1997) research on procedural justice (i.e., the perception of fairness in terms of the procedures followed by the police is a key determinant of the trust, confidence, and satisfaction held by different populations toward the police and their performance), a three-item procedural justice subscale was used to measure the participants' general views of how the police treat citizens (Hinds & Murphy, 2007). The total scores ranged from 0 to 12 points, with higher scores denoting more positive perceptions of procedural justice. Sample items include "Police treat people as if they can be trusted to do the right thing" and "Police are concerned about respecting a citizen's individual rights." Based on the idea that authorities (e.g., the police) fairly distribute services across people and communities, a two-item distributive justice subscale was used to assess the participants' views on the idea that the police give preferential treatment to different groups of people (Hinds & Murphy, 2007). The total scores ranged from 0 to 8 points, with higher scores reflecting more positive perceptions of distributive justice. A sample item includes "It's not about what you've done, but who you are, and who you know, when it comes to police."

One item was used to measure the participants' satisfaction with police services ("I am very satisfied with the services provided by the police"), with higher scores indicating greater satisfaction with police services. Finally, one item ("I have high trust in the government to always do the right thing for the police") was used to measure the participants' trust in the government (Kim, 2010), with higher scores denoting greater trust in the government. Cronbach's α for this measure was 0.76 (men = 0.73, women = 0.77), with the internal

consistency of the procedural and distributive justice subscales being 0.78 (men = 0.75, women = 0.79) and 0.63 (men = 0.66, women = 0.61), respectively. Although the inter-item reliability of the distributive justice subscale was lower than the desired alpha level of 0.70 (Nunnally, 1978), it is noteworthy that Cronbach's α is "dependent not only on the magnitude of the correlations among items, but also on the number of items" (Streiner & Norman, 1989, p. 64).

Analytic Strategy

In this study, self-reported measures were used in this study to explore (1) the participants' overall means and sex differences in the means of their self-reported attitudes toward violence and psychosocial risk factors (i.e., deviant behavior learning, positive and negative affect, general mental health, self-control, and social bonds), and perceptions of justice (i.e., general, procedural, and distributive justice, satisfaction with police services, and public trust in the government); and (2) the effects of psychosocial risk factors in association with the participants' attitudes toward violence, while controlling for their demographic characteristics and perceptions of justice. Independent sample *t*-tests were first performed to examine the sex differences in the means of the self-reported attitudes toward violence, psychosocial risk factors, and perceptions of justice. Sequential ordinary least squares (OLS) regressions were then conducted to explore the effects of different psychosocial risk factors on the self-reported attitudes toward violence, while controlling for the participants' demographic characteristics (i.e., age, sex, religiosity, marital status, and political inclination) and perceptions of general justice (i.e., procedural and distributive justice, satisfaction with police services, and public trust in the government).³ The participants' religiosity was assessed by how religious they perceived themselves to be on a 6-point Likert scale (1 = *not at all*, 6 = *very*

³ Liu and Liu (2018) found that people's perceptions of procedural and distributive justice and shared values were strongly associated with their support for the police, which in turn fostered their compliance with the law. In this study, it was expected that the participants' attitudes toward violence (possible noncompliance with the law) can be influenced by their overall perceptions of general justice during the period of social unrest, which was widely regarded as politically motivated. Hence, the variable of perceptions of general justice was regarded as a control variable in this study.

strongly). Pearson correlations of the tested variables were computed. No correlation at or above 0.70 was found, indicating no collinearity. The significance level was set at .05.

Ethical Considerations

This study was approved by the ethical committee of the author's university. The participants were allowed to end their participation, contact the primary investigator, and/or receive professional counseling at any time. All data were collected anonymously with no personal identifying details recorded.

RESULTS

Sex Differences in the Means of Attitudes toward Violence and Psychosocial Risk Factors

The mean differences between the male and female participants' self-reported attitudes toward violence and psychosocial risk factors are presented in Table 2. Relative to the male participants, the female participants reported significantly higher attitudes toward violence ($t = -3.40, p = .001$). For the psychosocial risk factors, the female participants also scored significantly higher on positive affect ($t = -3.77, p < .001$), general mental health ($t = -3.04, p = .002$), and social bonds ($t = -3.13, p = .002$) than their male counterparts. No significant differences were noted between the male and female participants in the other psychosocial risk factors. Hypothesis 1 was partially supported.

INSERT TABLE 2 ABOUT HERE

Effects of Psychosocial Risk Factors on Attitudes toward Violence

OLS regressions were computed to examine the effects of the psychosocial risk factors on the participants' self-reported attitudes toward violence, while controlling for their demographic characteristics (i.e., age, sex, religiosity, marital status, and political inclination) and perceptions of justice (i.e., general, procedural, and distributive justice, satisfaction with police services, and public trust in the government). Table 3 shows that all of the regression models were significant. In general, the participants' positive affect ($B = 0.24, SE = 0.04, p$

< .001), negative affect ($B = 0.24$, $SE = 0.03$, $p < .001$), and social bonds ($B = 0.34$, $SE = 0.04$, $p < .001$) were positively associated, while self-control ($B = -0.14$, $SE = 0.03$, $p < .001$) was negatively associated with their attitudes toward violence. In Model 1, being male ($B = 1.52$, $SE = 0.52$, $p = .004$), more religious ($B = 0.35$, $SE = 0.18$, $p = .049$), and non-single ($B = -1.67$, $SE = 0.53$, $p = .001$) were found to be significantly associated with pro-violence attitudes.

Similar significant psychosocial predictors were found even when the regression models controlled for the participants' perceptions of justice, both as a single general measure and with the four sub-measures. In Models 2 and 3, the participants' levels of positive affect (Model 2: $B = 0.25$, $SE = 0.04$, $p < .001$; Model 3: $B = 0.20$, $SE = 0.04$, $p < .001$), negative affect (Model 2: $B = 0.23$, $SE = 0.04$, $p < .001$; Model 3: $B = 0.22$, $SE = 0.04$, $p < .001$), and social bonds (Model 2: $B = 0.33$, $SE = 0.04$, $p < .001$; Model 3: $B = 0.32$, $SE = 0.03$, $p < .001$) were positively correlated, while self-control (Model 2: $B = -0.15$, $SE = 0.03$, $p < .001$; Model 3: $B = -0.10$, $SE = 0.03$, $p < .001$) was negatively related to their attitudes toward violence. In Model 2, being male ($B = 1.43$, $SE = 0.52$, $p = .006$), non-single ($B = -1.52$, $SE = 0.52$, $p = .004$), and having an increased level of perceived general justice ($B = 0.18$, $SE = 0.05$, $p < .001$) were significantly associated with pro-violence attitudes. Similarly, in Model 3, being male ($B = 1.56$, $SE = 0.51$, $p = .002$), more religious ($B = 0.34$, $SE = 0.18$, $p = .047$), non-single ($B = -1.20$, $SE = 0.52$, $p = .020$), having an increased level of perceived procedural justice ($B = 0.48$, $SE = 0.15$, $p = .001$), and having a reduced level of perceived distributive justice ($B = -0.46$, $SE = 0.12$, $p < .001$) were significant predictors of pro-violence attitudes. Hypothesis 2 was partially supported.

INSERT TABLE 3 ABOUT HERE

DISCUSSION

Criminal attitudes are considered an important risk factor in the perpetration of crime (Bonta & Andrews, 2017). Thus, it is reasonable to speculate that attitudes supportive of

violence may directly influence the propensity to engage in violent behavior. Indeed, Anderson and Huesmann (2007) found that habitually violent individuals tend to hold more attitudes supportive of violence. Moreover, Losel (2003) reported that through their interactions with group influences, individuals may develop attitudes, values, and self-related cognitions that encourage criminal behavior. Thus, this study not only makes an important contribution to the literature but can also help practitioners reduce the probability of individuals holding favorable attitudes toward violence. Using a large sample of Hong Kongers, the primary aims of this study were (1) to explore the relationship between psychosocial risk factors (i.e., deviant behavior learning, positive and negative affect, general mental health, self-control, and social bonds) and pro-violence attitudes, and (2) to examine whether this relationship holds when controlling for demographic characteristics (i.e., age, sex, religiosity, marital status, and political inclination) and perceptions of justice (i.e., general, procedural, and distributive justice, satisfaction with police services, and public trust in the government). In general, the female participants reported significantly higher attitudes toward violence, positive affect, and social bonds than the male participants. In other words, women may be more inclined to engage in subsequent criminal and violent activities.

Several noteworthy findings regarding the effects of psychosocial risk factors on the probability of holding favorable attitudes toward violence also warrant further discussion. These findings lend support to some of the major criminological theories for explaining pro-violence attitudes. It is interesting to note that higher levels of negative and positive affect were found to be significantly associated with holding favorable attitudes toward violence. Simply put, those who experience negative (e.g., are distressed, irritated, or upset) and positive emotions (e.g., are determined or excited) are more likely to have pro-violence attitudes. This assertion is consistent with the literature showing that high levels of negative temperament and low levels of constraints are associated with the probability of holding criminal attitudes and

being involved in actual criminal and violent activities (Baglivio et al., 2016; Caspi et al., 1994; Chui & Chan, 2012a; DeLisi & Vaughn, 2014; Krueger et al., 1994; Wolff et al., 2016). In this regard, by promoting maladaptive corrective actions, pro-violence attitudes reflect the need to cope with negative emotions.

In the context of the pro-democracy protests in Hong Kong, the positive types of temperament, such as being determined and mentally strong, that were associated with pro-violence attitudes can be explained by the participants' political inclinations (70%) toward the pro-democracy and pro-independence movements, as these inclinations were positively associated with their pro-violence attitudes. June 12, 2019 marked a significant turning point for the democratic movement in Hong Kong, as on this day a large crowd of protestors stormed the Legislative Council Complex to prevent the second reading of the extradition bill and effectively stopped the passage of the anti-extradition bill.⁴ However, the police fired multiple rounds of tear gas and rubber bullets at the crowd, leaving many injured and nearly causing a stampede. More importantly, these incidents led many Hong Kongers to adopt favorable views on the use of violence as a means of resisting the government. Hence, it is reasonable to suggest that some specific positive emotions (e.g., being determined and mentally strong) are associated with the participants' pro-violence attitudes in this study.

This study also provides empirical support for Gottfredson and Hirschi's (1990) hypothesis in that the participants' self-control was inversely associated with their attitudes toward violence. In other words, those who had low self-control were more likely to hold pro-violence attitudes. Low self-control has long been identified in cross-cultural studies as a

⁴ On June 9, 2019, 1.03 million Hong Kongers participated in the anti-extradition bill rally, with 29 countries worldwide holding assemblies in support. However, at 11pm that day, the Hong Kong government announced that the second reading of the bill would take place on June 12, 2019 as scheduled. This led to the June 12 incident, which the government referred to as "612 incident" or "riot." On June 15, 2019, the Chief Executive of Hong Kong, Carrie Lam Cheng Yuet-ngor agreed to postpone the bill, but not to withdraw it completely. This move angered many Hong Kongers and pushed another two million people to take to the streets the next day. However, the Chief Executive continued to refuse to withdraw the bill in a press conference on June 18, 2019, which further infuriated many Hong Kongers who believed the bill could be used as an "evil" instrument to suppress dissident voices in Hong Kong (Ng, 2020).

ubiquitous predictor of deviant and violent attitudes and behavior (e.g., Chan, 2021a, 2021b; Chan & Chui, 2017; Gottfredson, 2009; Sacarellos et al., 2016). Individuals with low self-control are often egoistical and unsympathetic to others, and are willing to do whatever it takes to achieve quick and easy satisfaction, even at the expense of the well-being of others. Hirschi and Gottfredson (2001) posited that “people who engage in crime are people who tend to neglect long-term consequences. They are, or tend to be, children of the moment. They have what we call low self-control” (p. 90).

Interestingly, the participants' increased social bonds were positively associated with their favorable attitudes toward violence. The direction of this finding is largely inconsistent with studies of criminal and pro-violence attitudes and behavior, in which strong social bonds have commonly been found to be protective factors against holding criminal or pro-violence attitudes and engaging in criminal or violent activities (Chan, 2021a, 2021b; Chan & Chui, 2013). However, this relationship is not unusual. Holsinger (1999) posited that individuals who have been socialized in deviant settings and have acquired antisocial attitudes toward criminal behavior (e.g., pro-violence attitudes) are more likely to commit crimes in the future. For instance, parental influence can contribute to the intergenerational transmission of deviance, whereby children learn deviant attitudes and behavior from their parents (Chan & Chui, 2013; Patterson et al., 1992). Moreover, Unnever and Cornell (2004) claimed that parents who are criminally active may adopt an unhealthy parenting style, such as coercive parenting, in rearing their children, which may subsequently undermine their prosocial functioning. Studies have also reported that the normative influence of deviant peers can interact with criminal attitudes. Moreover, when these correlates are strongly associated, the likelihood of actual perpetration of criminal and violent behavior is particularly high (Andrews & Kandel, 1979; Mills et al., 2002). In addition, involvement in criminal organizations may increase an individual's propensity to hold pro-violence attitudes and engage in violent activities. Garbarino (2006)

even stressed that increased participation in sport may contribute to increased aggressiveness. Nonetheless, the social bonding perspective appears to be more complicated than the theory initially proposed.

With respect to the participants' demographic characteristics, the findings show that the male participants had higher levels of pro-violence attitudes than the female participants. Consistent with the literature, men were found to have stronger positive attitudes toward criminal thinking (e.g., Morgan et al., 2010; Wilson et al., 2014) and violence (e.g., Flood & Pease, 2009; Lee et al., 2005) than women. However, some participants who reported having religious beliefs and not being single were found to have positive attitudes toward violence. Although the direction of this finding is somewhat contrary to the literature, it is not unexpected given the political context of this study, the pro-democracy movement in Hong Kong. Most of the participants who were religiously affiliated were not single. Research has generally found a positive relationship between religious beliefs and practices and a call for political equality (e.g., democracy) (e.g., Freeman, 2020; Stephen, 2000). In addition, the participants' perceptions of general justice, which were high for procedural justice and low for distributive justice, were found to be associated with their pro-violence attitudes. In other words, those who perceived that the police performed their duties fairly (i.e., procedural justice) but unfairly provided different treatment to different groups and communities (i.e., distributive justice) were found to have favorable attitudes toward violence. However, the direction of these findings, especially the positive relationship between the perception of procedural justice and pro-violence attitudes, is counter-intuitive (Tyler, 2001), which suggests that other factors (e.g., group thinking and values) may influence this relationship (Lind & Tyler, 1988). Besides, de Lange and colleagues (2018), in their cognitive science study, asserted that prior knowledge, including experience, has a profound impact on the ways in which people perceive the world. Thus, more research is needed to unveil the complexity of this relationship.

This study has several methodological limitations that need to be acknowledged. First, the study was limited by its correlational nature, and the findings, at most, should only be interpreted in correlational terms. Future studies should consider adopting a longitudinal design to better understand the causal relationships between psychosocial risk factors and attitudes toward violence. Second, this study was limited by the use of self-reported data. Thus, biases such as social desirability may have influenced the participants' truthfulness in reporting their attitudes, perceptions, and experiences. Future studies should include a measure of response bias to address the limitations of using self-reported data. Third, two thirds of the participants recruited in this study were women, and more than 90% were young adults aged 18 to 45. Therefore, the findings are not necessarily generalizable to the wider Hong Kong population, especially older Hong Kongers. Nonetheless, the sample can be regarded as representative of the younger population of Hong Kong. Future research may consider sampling a more diverse age range of participants.

Implications of the Findings

Implications for research can be drawn from this study. First, findings of this study indicate that the participants' sex (i.e., biologically defined) played a significant role in determining their tendency to adopt pro-violence attitudes. However, it remains unknown as to whether the gender of the participants (e.g., gender identities, roles, and stereotypes) also imposes a significant effect on the participants' attitudes toward violence. Although most of the findings were consistent with the Western-dominated literature, it is unknown if these findings can be explained through a different cultural lens, specifically within the context of Chinese cultural values and practices. As traditional Chinese teachings and cultural values are highly valued in many Chinese societies like Hong Kong, the Confucius teachings of creating and maintaining a harmonious society through positive and health human relationships (e.g., love and obedience, trust, and loyalty and duty) (Ch'en, 1986). Therefore, future research

should take into account of the potential influence of gender and cultural norms when studying an individual's attitudes toward violence.

Criminal attitudes, including pro-violence attitudes, are regarded as one of the “Big Four” factors that can predict and manage the risk of offending and reoffending (Andrews et al., 2006). Therefore, it is important that criminal attitudes are fully identified and addressed in intervention programs. In particular, reducing pro-violence attitudes can reduce the risk of violent behavior. Moreover, attitudes are only moderately stable and can be altered through appropriate education, training, or therapy (Banse et al., 2013). Therefore, this study has important practical implications in terms of public education and policy development/refinement, especially in regard to strategically and effectively engaging Hong Kongers in initiatives that will reduce their likelihood of holding favorable attitudes toward violence. This type of intervention is especially pertinent for children, adolescents, and young adults.

School education programs should also be developed to collectively involve parents, school administrators, teachers, and social service providers to prevent younger generations from developing positive attitudes toward violence. School practices and training should aim to promote prosocial functioning (e.g., reduced negative emotions, enhanced self-control) in relation to personal development skills (e.g., anger management, victim empathy, delaying gratification) to generate prosocial approaches and healthy psychosocial functioning. Moreover, research has consistently demonstrated that parental involvement has a significant effect on adolescents and young adults' future involvement in crime both as offenders and victims (e.g., Chan, 2019a; Craig, 2015). Hence, secure and prosocial parent–child relationships are an important protective factor against criminal and violent behavior. When necessary, social service providers (e.g., social workers) can serve as an effective bridging agent between parents and their offspring when there are tensions between the two parties. Timely and effective

intervention is essential to prevent pro-violence attitudes from turning into actual incidents of violence.

In addition, community-based resources and counseling services to promote positive and prosocial self-development should be strengthened to help individuals cope with their negative emotions. Public mental health seminars should also be conducted regularly to disseminate useful information about strategies to cope with negative emotions (e.g., anger management, self-assertiveness). Social norm interventions may be helpful for individuals who hold pro-violence attitudes, as these individuals are potentially at high risk of perpetrating violent acts, and their misperception of violence as a problem-solving method needs to be effectively addressed.

On a broader scale, the government should introduce pragmatic precautionary measures to reduce the propensity for violence among members of the anti-government movement and thus ensure public safety, socio-economic development, and social stability. The findings of this study may help law enforcement agencies improve their policing approaches, especially in terms of policing crowds. In addition to updating the police training curriculum by incorporating modules related to crowd-policing training, refresher training for current officers should include similar training modules (e.g., crowd psychology, public order policing). By updating and streamlining the current policies and programs, the police can help avoid future clashes with violent protestors and thus enhance their legitimacy. In terms of policy implications, police legitimacy relies heavily on whether the police effectively accomplish their traditional functions (e.g., rapid response, crime prevention and solving, and victim assistance) and whether the public are treated fairly in police encounters. The success of the police depends heavily on citizens' willingness to cooperate. Therefore, building positive police-citizen relationships is essential, especially among young people. Negative attitudes toward the police may negatively influence their compliance with police requests and with the law in general

(Tyler & Huo, 2002). Therefore, in order to enhance public perceptions of procedural and distributive fairness, Hong Kong's police officers should stay neutral and transparent in their decision-making, show genuine concern for the interests of all parties, treat citizens from different background fairly and with respect, and where appropriate, involve citizens in the decision-making process.

References

- Agnew, R. (1992). Foundation for a general strain theory of crime and delinquency. *Criminology*, 30(1), 47-87. doi:10.1111/j.1745-9125.1992.tb01093.x
- Agnew, R. (2002). Experienced, vicarious, and anticipated strain: An exploratory study on physical victimization and delinquency. *Justice Quarterly*, 19(4), 603-632. doi: 10.1080/07418820200095371.
- Agnew, R., Brezina T., Wright. J. P., & Cullen, F. T. (2002). Strain, personality traits, and delinquency: Extending General Strain Theory. *Criminology*, 40(1), 43-72. doi: 10.1111/j.1745-9125.2002.tb00949.x.
- Akers, R. L. (1985). *Deviant behavior: A social learning approach*. Belmont, CA: Wadsworth Publishing.
- Akers, R. L. (1997). *Criminological theories: Introduction and evaluation* (2nd ed.). Los Angeles, CA: Roxbury.
- Akers, R. L. (1998). *Social learning and social structure: A general theory of crime and deviance*. Boston, MA: Northeastern University Press.
- Anderson, C.A., & Bushman, B.J. (2002). Human aggression. *Annual Review of Psychology*, 53, 27-51. doi: 10.1146/annurev.psych.53.100901.135231.
- Anderson, C. A., & Huesmann, L. R. (2007). Human aggression: A social cognitive view. In M.A. Hogg & J. Cooper (Eds.), *The Sage handbook of social psychology* (pp. 259-287). Thousand Oaks, CA: Sage
- Andrews, D. A., Bonta, J., & Wormith, J. S. (2006). The recent past and near future of risk and/or need assessment. *Crime & Delinquency*, 52, 7-27. doi: 10.1177/0011128705281756
- Andrews, K. H. & Kandel, D. B. (1979). Attitude and behavior: A specification of the contingent consistency hypothesis. *American Sociological Review*, 44(2), 298-310. doi: 10.2307/2094512.
- Badenes-Ribera, L., Sánchez-Meca, J., & Longobardi, C. (2019). The relationship between internalized homophobia and intimate partner violence in same-sex relationships: A meta-analysis. *Trauma, Violence, & Abuse*, 20(3), 331-343. doi: 10.1177/1524838017708781.
- Bandura, A. (1973). *Aggression: A social learning analysis*. Englewood Cliffs, NJ: Prentice Hall.
- Banks, M. H., Clegg, C. W., Jackson, P. R., Kemp, N. J., Stafford, E. M., & Wall, T. D. (1980). The use of the General Health Questionnaire as an indicator of mental health in occupational studies. *Journal of Occupational Psychology*, 53(3), 187-194. doi: 10.1111/j.2044-8325.1980.tb00024.x.

- Baglivio, M. T., Wolff, K. T., DeLisi, M., Vaughn, M. G., & Piquero, A. R. (2016). Effortful control, negative emotionality, and juvenile recidivism: an empirical test of DeLisi and Vaughn's temperament-based theory of antisocial behavior. *The Journal of Forensic Psychiatry & Psychology*, 27(3), 376-403. doi: 10.1080/14789949.2016.1145720.
- Banse, R., Koppehele-Gossel, J., Kistemaker, L. M., Werner, V. A., & Schmidt, A. F. (2013). Pro-criminal attitudes, intervention, and recidivism. *Aggression and Violent Behavior*, 18(6), 673-685. doi: 10.1016/j.avb.2013.07.024.
- Bonta, J., & Andrews, D. A. (2017). *The psychology of criminal conduct* (6th ed.). Cincinnati, OH: Anderson.
- Broidy, L., & Agnew, R. (1997). Gender and crime: A general strain theory perspective. *Journal of Research in Crime and Delinquency*, 34(3), 275-306. doi: 10.1177/0022427897034003001.
- Caspi, A., Moffitt, P. A., Stouthamer-Loeber, M., Krueger, R. F., & Schmutte, P. S. (1994). Are some people crime-prone? Replications of the personality-crime relationship across countries, genders, races, and methods. *Criminology*, 32(2), 163-195. doi: 10.1111/j.1745-9125.1994.tb01151.x.
- Chan, H. C. O. (2016). Crime and punishment in Hong Kong. In W.G. Jennings, G.E. Higgins, D.N. Khey, & M.M. Maldonado-Molina (Eds.), *The Encyclopedia of Crime and Punishment* (pp. 1-8.). New York: John Wiley & Sons. doi: 10.1002/9781118519639.wbecpx072
- Chan, H. C. O. (2019a). Interpersonal and property victimization: An exploratory study of criminogenic risk factors of Hong Kong adolescents. *Children and Youth Services Review*, 106, Article 104475. doi: 10.1016/j.childyouth.2019.104475.
- Chan, H. C. O. (2019b). Exploring the overlap between victimization and offending among Hong Kong adolescents. *Journal of Criminal Justice*, 61, 72-80. doi: 10.1016/j.crimjus.2019.03.003.
- Chan, H. C. O. (2020). The victim-offender overlap in sexual offending: Exploring a community-based sample of young adults in Hong Kong. *Sexual Abuse: A Journal of Research and Treatment*. Advance online publication. 1-27. doi: 10.1177/1079063220981889.
- Chan, H.C.O. (2021a). Violent offending, nonviolent offending, and general delinquency: Exploring the criminogenic risk factors of Hong Kong male and female adolescents. *International Journal of Offender Therapy and Comparative Criminology*, 65(9), 975-998. doi: 10.1177/0306624X19881917.
- Chan, H. C. O. (2021b). Paraphilic interests: The role of psychosocial factors in a sample of young adults in Hong Kong. *Sexuality Research and Social Policy*. Advance online publication. 1-20. doi: 10.1007/s13178-020-00532-z.
- Chan, H. C. O. (2021c). Risky sexual behavior of young adults in Hong Kong: An

- exploratory study of psychosocial risk factors. *Frontiers in Psychology*, *12*, 658179. doi: 10.3389/fpsyg.2021.658179.
- Chan, H. C. O., & Chui, W. H. (2012a). Psychological correlates of violent and non-violent Hong Kong juvenile probationers. *Behavioral Sciences and the Law*, *30*(2), 103-120. doi: 10.1002/bsl.2003.
- Chan, H. C. O., & Chui, W. H. (2013). Social bonds and school bullying: A study of Macanese male adolescents on bullying perpetration and peer victimization. *Child & Youth Care Forum*, *42*(6), 599–616. doi: 10.1007/s10566-013-9221-2.
- Chan, H. C. O., & Chui, W. H. (2015). Social bonds and self-reported nonviolent and violent delinquency: A study of traditional low risk, at-risk and adjudicated male Chinese adolescents. *Child & Youth Care Forum*, *44*, 711-730. doi: 10.1007/s10566-015-9303-4.
- Chan, H. C. O., & Chui, W. H. (2017). The influence of low self-control on violent and nonviolent delinquencies: A study of male adolescents from two Chinese societies. *Journal of Forensic Psychiatry and Psychology*, *28*(5), 599-619. doi: 10.1080/14789949.2015.1012534.
- Chan, H. C. O., Lo, T. W., & Zhong, L. Y. (2016). Identifying the self-anticipated reoffending risk factors of incarcerated male repeat offenders in Hong Kong. *The Prison Journal*, *96*(5), 731-751. doi: 10.1177/0032885516662640.
- Chapple, C. L., McQuillan, J. A., & Berdahl, T. A. (2005). Gender, social bonds, and delinquency: A comparison of boys' and girls' models. *Social Science Research*, *34*, 357-383. doi: 10.1016/j.ssresearch.2004.04.003.
- Chiesi, F., Bonacchi, A., Lau, C., Tosti, A. E., Marra, F., & Saklofske, D. H. (2020). Measuring self-control across gender, age, language, and clinical status: A validation study of the Italian version of the Brief Self-Control Scale (BSCS). *PLoS ONE*, *15*(8), e0237729. doi: 10.1371/journal.pone.0237729.
- Ch'en, C. (1986). *Neo-Confucian terms explained*. New York, NY: Columbia University Press.
- Cheung, Y. W. (1997). Family, school, peer and media predictors of adolescent deviant behavior in Hong Kong. *Journal of Youth and Adolescence*, *26*, 569-596. doi: 10.1023/A:1024534022895.
- Chui, W. H., & Chan, H. C. O. (2012a). Criminal recidivism among Hong Kong male juvenile probationers. *Journal of Child and Family Studies*, *21*(5), 857-868. doi: 10.1007/s10826-011-9546-0.
- Chui, W. H., & Chan, H. C. O. (2012b). An empirical investigation of social bonds and juvenile delinquency in Hong Kong. *Child & Youth Care Forum*, *41*, 371-386. doi: 10.1007/s10566-012-9172-z.
- Chui, W. H., & Chan, H. C. O. (2013). Psychological characteristics of male 14- to 20-year-

- olds on probation and in a residential home in Hong Kong. *Criminal Behaviour & Mental Health*, 23(1), 41-55. doi: 10.1002/cbm.1851.
- Chui, W. H., & Chan, H. C. O. (2016). The gendered analysis of self-control on theft and violent delinquency: An examination of Hong Kong adolescent population. *Crime & Delinquency*, 62(12), 1648-1677. doi: 10.1177/0011128712470992.
- Church, W. T., II., Wharton, T., & Taylor, J. K. (2009). An examination of differential association and social control theory: Family systems and delinquency. *Youth Violence and Juvenile Justice*, 7(1), 3-15. doi: 10.1177/1541204008324910.
- Cohen, L. E., & Felson, M. (1979). Social change and crime rate trends: A routine activities approach. *American Sociological Review*, 44(4), 588-608. doi: 10.2307/2094589.
- Cooper, A. N., Seibert, G. S., May, R. W., Fitzgerald, M. C., & Fincham, F. D. (2017). School burnout and intimate partner violence: The role of self-control. *Personality and Individual Differences*, 112, 18-25. doi: 10.1016/j.paid.2017.02.047.
- Craig, J. M. (2015). Which bond matters more? Assessing the differential strengths of parental bonding measures on adolescent delinquency over time. *Youth Violence and Juvenile Justice*, 14(3): 225–242. doi: 10.1177/1541204014565670.
- de Lange, F. P., Heilbron, M., & Kok, P. (2018). How do expectations shape perception? *Trends in Cognitive Sciences*, 22(9), 764-779. doi: 10.1016/j.tics.2018.06.002.
- De Li, S., & MacKenzie, D. L. (2003). The gendered effects of adult social bonds on the criminal activities of probationers. *Criminal Justice Review*, 28(2), 278-298. doi: 10.1177/073401680302800205.
- DeLisi, M., & Vaughn, M. G. (2014). Foundation for a temperament-based theory of antisocial behavior and criminal justice system involvement. *Journal of Criminal Justice*, 42(1), 10-25. doi: 10.1016/j.jcrimjus.2013.11.001.
- de Ridder D. T. D., Lensvelt-Mulders, G., Finkenauer, C., Stok, F. M., & Baumeister, R. F. (2012). Taking stock of self-control: A meta-analysis of how trait self-control relates to a wide range of behaviors. *Personality and Social Psychology Review*, 16(1), 76-99. doi: 10.1177/10888683111418749.
- Epps, J., & Kendall, P.C. (1995). Hostile attribution bias in adults. *Cognitive Therapy and Research*, 19, 159-178. doi: 10.1007/BF02229692.
- Felson, M., & Cohen, L. (1980). Human ecology and crime: A routine activities approach. *Human Ecology*, 8, 389-406. doi:10.1007/BF01561001.
- Felson, R. B. (1992). Kick 'em when they're down: Explanations of the relationship between stress and interpersonal aggression and violence. *Sociological Quarterly*, 33(1), 1-16. doi: 10.1111/j.1553-8525.1992.tb00360.x.
- Flood, M., & Pease, B. (2009). Factors influencing attitudes to violence against women. *Trauma, Violence, and Abuse*, 10(2), 125-142. doi: 10.1177/1524838009334131.

- Freeman, S. (2020). Democracy, religion, and public reason. *Daedalus*, 149(3), 37-58. doi: 10.1162/daed_a_01802.
- Funk, J. B., Elliott, R., Urman, M. L., Flores, G. T., & Mock, R. M. (1999). The attitudes towards violence scale: A measure for adolescents. *Journal of Interpersonal Violence*, 14(11), 1123-1136. doi: 10.1177/088626099014011001.
- Garbarino, J. (2006). *See Jane hit: Why girls are growing more violent and what can be done about it*. New York: Penguin.
- Gottfredson, M. R. (2009). The empirical status of control theory in criminology. In F.T. Cullen, J.P. Wright, & K.R. Blevins (eds.), *Taking stock: The status of criminological theory*, Vol. 15 (pp. 77-100). New Brunswick, NJ: Transaction Publishers.
- Gottfredson, M. R., & Hirschi, T. (1990). *A general theory of crime*. Stanford, CA: Stanford University Press.
- Grasmick, H. G., Tittle, C. R., Bursik, R. J., & Arneklev, B. J. (1993). Testing the core implications of Gottfredson and Hirschi's general theory of crime. *Journal of Research in Crime and Delinquency*, 30(1), 5-29. doi: 10.1177/0022427893030001002.
- Hartjen, C. A., & Priyadarsini, S. (2003). Gender, peers, and delinquency: A study of boys and girls in rural France. *Youth & Society*, 34(4), 387-414. doi: 10.1177/0044118X03034004001.
- Hoeben, E. M., Meldrum, R. C., Walker, D., & Young, J. T. N. (2016). The role of peer delinquency and unstructured socializing in explaining delinquency and substance use: A state-of-the-art review. *Journal of Criminal Justice*, 47, 108-122. doi: 10.1016/j.jcrimjus.2016.08.001.
- Hoeve, M., Stams, G. J. J. M., van der Put, C. E., Dubas, J. S., van der Laan, P. H., & Gerris, J. R. M. (2012). A meta-analysis of attachment to parents and delinquency. *Journal of Abnormal Child Psychology*, 40, 771-785. doi: 10.1007/s10802-011-9608-1.
- Hinds, L., & Murphy, K. (2007). Police satisfaction with police: Using procedural justice to improve police legitimacy. *Australian & New Zealand Journal of Criminology*, 40(1), 27-42. doi: 10.1375/acri.40.1.27.
- Hirschi, T. (1969). *Causes of delinquency*. Berkeley, CA: University of California Press.
- Hirschi, T., & Gottfredson, M. (1994). *The generality of deviance*. New Brunswick, NJ: Transaction.
- Hirschi, T., & Gottfredson, M. R. (2001). Self-control theory. In R. Paternoster & R. Bachman (Eds.), *Explaining criminals and crime: Essays in contemporary criminological theory* (pp. 81-96). Los Angeles, CA: Roxbury.
- Holsinger, A. M. (1999). Assessing criminal thinking: Attitudes and orientations influence

- behavior. *Corrections Today*, 61, 22-25.
- Hopkins, P. (2016). Gendering Islamophobia, racism and White supremacy: Gendered violence against those who look Muslim. *Dialogues in Human Geography*, 6(2), 186-189. doi: 10.1177/2043820616655018.
- Huebner, A. J., & Betts, S. C. (2002). Exploring the utility of social control theory for youth development. *Youth and Society*, 34(2), 123-145. doi: 10.1177/04411802237860.
- Ip, W. Y., & Martin, C. R. (2006). Psychometric properties of the 12-item General Health Questionnaire (GHQ-12) in Chinese women during pregnancy and in the postnatal period. *Psychology, Health & Medicine*, 11(1), 60-69. doi: 10.1080/13548500500155750.
- Kim, S. (2010). Public trust in government in Japan and South Korea: Does the rise of critical citizens matter? *Public Administration Review*, 70(5), 801-810. doi: 10.1111/j.1540-6210.2010.0227.x.
- Kobayashi, E., & Fukushima, M. (2012). Gender, social bond, and academic cheating in Japan. *Sociological Inquiry*, 82(2), 282-304. doi: 10.1111/j.1475-682X.2011.00402.x.
- Krueger, R. F., Schmutte, P. S., Caspi, A., Moffitt, T. E., Campell, K., & Silva, P. A. (1994). Personality traits are linked to crime among men and women: Evidence from a birth cohort. *Journal of Abnormal Psychology*, 103(3), 328-338. doi: 10.1037//0021-843X.103.2.328.
- Laundra, K. H., Kiger, G., & Bahr, S. J. (2002). A social development model of serious delinquency: Examining gender differences. *Journal of Primary Prevention*, 22(4), 389-407. doi: 10.1023/A:1015279607215.
- Lee, J., Pomeroy, E. C., Yoo, S.-K., & Rheinboldt, K. T. (2005). Attitudes toward rape: A comparison between Asian and Caucasian college students. *Violence Against Women*, 11(2), 177-196. doi: 10.1177/1077801204271663.
- Legislative Council of Hong Kong. (2019). *Fugitive Offenders and Mutual Legal Assistance in Criminal Matter Legislation (Amendment) Bill 2019*. Accessed on 26 April 2021 from <https://www.legco.gov.hk/yr18-19/english/bills/b201903291.pdf>
- Li, W. H. C., Chung, J. O. K., Chui, M. M. L., & Chan, P. S. L. (2009). Factorial structure of the Chinese version of the 12-item General Health Questionnaire in adolescents. *Journal of Clinical Nursing*, 18, 3253-3261. doi: 10.1111/j.1365-2702.2009.02905.x.
- Lind, E. A., & Tyler, T. R. (1988). *The social psychology of procedural justice*. New York: Plenum Press.
- Liu, S., & Liu, J. (2018). Police legitimacy and compliance with the law among Chinese youth. *International Journal of Offender Therapy and Comparative Criminology*, 62(11), 3536-3561. doi: 10.1177/0306624X17740559.
- Losel, F. (2003). The development of delinquent behaviour. In D. Carson & R. Bull (Eds.),

Handbook of psychology in legal context (2nd ed., pp. 245-268). England: John Wiley and Sons.

- Maldonado-Molina, M. M., Jennings, M. G., Tobler, A. L., Piquero, A. R. & Canino, G. (2010). Assessing the victim-offender overlap of youth. *Journal of Criminal Justice*, 38, 1191-1201. doi: 10.1016/j.jcrimjus.2010.09.008.
- Mason, W. A., & Windle, M. (2002). Gender, self-control, and informal social control in adolescence: A test of three models of the continuity of delinquent behavior. *Youth and Society*, 33(4), 479-514. doi: 10.1177/0044118X02033004001.
- McCoy, S. S., Dimler, L. M., Samuels, D. V., & Natsuaki, M. N. (2019). Adolescent susceptibility to deviant peer pressure: Does gender matter? *Qualitative Review*, 4, 59-71. doi: 10.1007/s40894-017-0071-2.
- McMillan, C., Felmlee, D., & Osgood, D. W. (2018). Peer influence, friend selection, and gender: How network processes shape adolescent smoking, drinking, and delinquency. *Social Networks*, 55, 86-96. doi: 10.1016/j.socnet.2018.05.008.
- McNeely, S., Meldrum, R. C., & Hoskin, A. W. (2018). Low self-control and the adoption of street code values among young adults. *Journal of Criminal Justice*, 56, 118-126. doi: 10.1016/j.jcrimjus.2017.07.004.
- Mills, J. F., Kroner, D. G., & Forth, A. E. (2002). Measures of criminal attitudes and associates (MCAA): Development, factor structure, reliability, and validity. *Assessment*, 9(3), 240-253. doi: 10.1177/1073191102009003003.
- Moon, B., & Morash, M. (2017). Gender and general strain theory: A comparison of strains, mediating, and moderating effects explaining three types of delinquency. *Youth & Society*, 49(4), 484-504. doi: 10.1177/0044118X14541877.
- Morgan, R. D., Fisher, W. H., Duan, N., Mandracchia, J. T., & Murray, D. (2010). Prevalence of criminal thinking among state prison inmates with serious mental illness. *Law and Human Behavior*, 34, 324-336. doi: 10.1007/s10979-009-9182-z.
- Muraven, M., Pogarsky, G., & Shmueli, D. (2006). Self-control depletion and the general theory of crime. *Journal of Quantitative Criminology*, 22(3), 263-277. doi: 10.1007/s10940-006-9011-1.
- Ng, M. K. (2020). The making of 'violent' Hong Kong: A centennial dream? A fight for democracy? A challenge to humanity? *Planning Theory & Practice*, 21(3), 483-494. doi: 10.1080/14649357.2020.17699.14.
- Ngai, N., & Cheung, C. (2005). Predictors of the likelihood of delinquency: A study of marginal youth in Hong Kong, China. *Youth & Society*, 36, 445-470. doi: 10.1177/0044118X04265090.
- Ngai, N., Cheung, C., & Ngai, S. S. (2007). Cognitive and social influences on gang involvement among delinquents in three Chinese cities. *Adolescence*, 42, 381-403.

- Nunnally, J. (1978). *Psychometric theory*. New York: McGraw-Hill.
- Osgood, D. W., Wilson, J. K., O'Malley, P. M., Bachman, J. G., & Johnston, L. D. (1996). Routine activities and individual deviant behavior. *American Sociological Review*, *61*(4), 635-655. doi: 10.2307/2096397.
- Patternson, G. R., Reid, J. B., & Dishion, T. J. (1992). *Antisocial boys*. Eugene, OR: Castalia.
- Petty, R. E., & Cacioppo, J. T. (1981). *Attitudes and persuasion: Classic and contemporary approaches*. Dubuque, IA: William C. Brown.
- Piquero, N. L., Gover, A. R., MacDonald, J. M., & Piquero, A. R. (2005). The influence of delinquent peers on delinquency: Does gender matter? *Youth & Society*, *36*(3), 251-275. doi: 10.1177/0044118X04265652.
- Posick, C. (2013). The overlap between offending and victimization among adolescents: Results from the second International Self-Report Delinquency Study. *Journal of Contemporary Criminal Justice*, *29*(1), 106-124. doi: 10.1177/1043986212471250.
- Reid, J. A., & Piquero, A. R. (2016). Applying general strain theory to youth commercial sexual exploitation. *Crime & Delinquency*, *62*(3), 341-367. doi: 10.1177/0011128713498213.
- Sacarellos, C. D., Wright, J. P., Almosaed, N. F., Moghrabi, S. S., Bashatah, F. S., & Morgan, M. A. (2016). Crime in the Kingdom: The effects of low self-control in a Saudi Arabian sample of youth. *Youth Violence and Juvenile Justice*, *14*(3), 291-312. doi: 10.1177/1541204015616663.
- Schreck, C. J., Fisher, B. S., & Miller, J. M. (2004). The social context of violent victimization: A study of delinquent peer effect. *Justice Quarterly*, *21*(1), 23-48. doi: 10.1080/07418820400095731.
- Scott, D. A. I., & Mikell, T. (2019). 'Gender' and general strain theory: Investigating the impact of gender socialization on young women's criminal outcomes. *Journal of Crime and Justice*, *42*(4), 393-413. doi: 10.1080/0735648X.2018.1559754.
- Silver, E., Piquero, A. R., Jennings, W. G., Piquero, N. L., & Leiber, M. (2011). Assessing the violent offending and violent victimization overlap among discharged psychiatric patients. *Law and Human Behavior*, *35*(1), 49-59. doi: 10.1007/s10979-009-9206-8.
- Steketee, M., Junger, M., & Junger-Tas, J. (2013). Sex differences in the predictors of juvenile delinquency: Females are more susceptible to poor environments; males are influenced more by low self-control. *Journal of Contemporary Criminal Justice*, *29*(1), 88-105. doi: 10.1177/1043986212470888.
- Stephen, A. C. (2000). Religion, democracy, and the "Twin Tolerations". *Journal of Democracy*, *11*(4), 37-57. doi: 10.1353/jod.2000.0088.
- Streiner, D. L., & Norman, D. L. (1989). *Health measurement scales: A practical guide to their development and use*. New York: Oxford University Press.

- Suls, J., & Green, P. (2003). Pluralistic ignorance and college student perceptions of gender-specific alcohol norms. *Health Psychology, 22*(5), 479-486. doi: 10.1037/0278-6133.22.5.479.
- Sutherland, E.H. (1947). *Principles of criminology* (4th ed.). Philadelphia, PA: Lippincott.
- Taylor, T.J., Peterson, D., Esbensen, F.A., & Freng, A. (2007). Gang membership as a risk factor for adolescent violent victimization. *Journal of Research in Crime and Delinquency, 44*(4), 351-380. doi: 10.1177/0022427807305845.
- Tyler, T. R. (1990). *Why people obey the law*. New Haven, CT: Yale University Press.
- Tyler, T. R. (1997). The psychology of legitimacy: A relational perspective on voluntary deference to authorities. *Personality and Social Psychology Review, 1*(4), 323-345. doi: 10.1207/s15327957pspr0104_4.
- Tyler, T. R. (2001). Public trust and confidence in legal authorities: What do majority and minority group members want from the law and legal institutions? *Behavioral Sciences & the Law, 19*(2), 215-235. doi: 10.1002/bsl.438.
- Tyler, T. R. (2006). *Why people obey the law*. Princeton, NJ: Princeton University Press.
- Tyler, T. R., & Huo, Y. J. (2002). *Trust in the law: Encouraging public cooperation with the police and courts*. New York, NY: Russell Sage Foundation.
- Unnever, J. D., & Cornell, D. G. (2004). Middle school victims of bullying: Who reports being bullied. *Aggressive Behavior, 30*(5), 373-388. doi: 10.1002/ab.20030.
- Vazsonyi, A. T., & Klanjsek, R. (2008). A test of self-control theory across different socioeconomic strata. *Justice Quarterly, 25*(1), 101-131. doi: 10.1080/07418820801954571.
- Walters, G. D. (2017). Proactive criminal thinking and deviant identity as mediators of the peer influence effect. *Youth Violence and Juvenile Justice, 15*(3), 281-298. doi: 10.1177/1541204016636436.
- Warr, M. (2002). *Companions in crime: The social aspects of criminal conduct*. Cambridge, MA: Cambridge University Press.
- Watson, D., Clark, L. A., & Tellegen, A. (1988). Development and validation of brief measures of positive & negative affect: PANAS scales. *Journal of Personality and Social Psychology, 54*(6), 1063-1070.
- Weerman, F. M., & Hoeve, M. (2012). Peers and delinquency among girls and boys: Are sex differences in delinquency explained by peer factors? *European Journal of Criminology, 9*(3), 228-244. doi: 10.1177/1477370811435736.
- Widom, C.S., & Maxfield, M.G. (2001). *An update on the "cycle of violence."* Washington, DC: U.S. Department of Justice, Office of Justice Program, National Institute of Justice.

Wilson, A. B., Farkas, K., Ishler, K. J., Gearhart, M., Morgan, R., & Ashe, M. (2014). Criminal thinking styles among people with serious mental illness in jail. *Law and Human Behavior, 38*(6), 592-601. doi: 10.1037/lhb0000084.

Wolff, K. T., Baglivio, M. T., Piquero, A. R., Vaughn, M. G., & DeLisi, M. (2016). The triple crown of antisocial behavior: Effortful control, negative emotionality, and community disadvantage. *Youth Violence and Juvenile Justice, 14*(4), 350-366. doi: 10.1177/1541204015599042.

Table 1 Sample demographic characteristics ($N = 1,024$)

Variable	<i>N</i>	Percentage
Sex		
Male	344	33.6%
Female	680	66.4%
Age range		
18-25	483	47.2%
26-35	312	30.5%
36-45	154	15.0%
46 and above	75	7.3%
Place of origin		
Hong Kong	898	87.7%
Mainland China	114	11.1%
Others (e.g., Macau, Taiwan, India, Canada, & USA)	12	1.2%
Marital status		
Nonsingle	612	59.7%
Single	412	40.3%
Religious belief		
Without a religious belief	651	63.6%
With a religious belief (e.g., Christianity, Catholic, Buddhism, Muslim, Sikhism)	373	36.4%
Highest education attainment		
Primary school education	7	0.7%
Secondary school education	253	24.7%
Post-secondary school education (e.g., associate degree/ high diploma; and undergraduate and postgraduate degrees)	764	74.6%
Political inclination		
Pro-democracy camp	717	70.0%
Pro-independence/radical democracy camp	63	6.2%
Pro-establishment camp	10	1.0%
The centralist	54	5.3%
Politically neutral	118	11.5%
Others (e.g., refuse to answer, hard to say)	62	6.0%
Self-perceived identity		
Hong Kong citizen	916	89.5%
Chinese citizen	22	2.1%
Hong Kong Chinese citizen	23	2.2%
Chinese Hong Kong citizen	44	4.3%
Others (e.g., Hong Kong permanent resident with other citizenship)	19	1.9%

Table 1 cont.

Variable	<i>N</i>	Percentage
Occupation (<i>*participants can choose up to 2 options</i>)		
Full-time worker	558	54.5%
Part-time worker	138	13.5%
Full-time student	345	33.7%
Part-time student	35	3.4%
Unemployed	62	6.1%
Unstable work (temporary worker)	24	2.3%
Others (e.g., retiree)	17	1.7%
Monthly household income		
Less than HK\$20,000	169	16.5%
HK\$20,000 to HK\$24,999	153	14.9%
HK\$25,000 to HK\$29,999	157	15.3%
HK\$30,000 to HK\$39,999	186	18.2%
HK\$40,000 to HK\$59,999	185	18.1%
HK\$60,000 and above	174	17.0%
Family as recipient of social welfare assistance		
Yes	168	16.4%
No	856	83.6%
Self-reported police arrest		
Yes	39	3.8%
No	985	96.2%
Self-reported conviction		
Yes	18	1.8%
No	1,005	98.2%

Table 2 Sex differences of the prevalence of self-reported attitudes toward violence and psychosocial risk factors

Variable	All sample (<i>N</i> = 1,024)		Female (<i>N</i> = 680)		Male (<i>N</i> = 344)		<i>t</i> value
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	
	Attitudes toward violence	42.70	9.39	44.10	9.53	42.00	
Psychosocial risk factors							
Deviant behavior learning	5.16	5.19	5.57	5.71	4.95	4.89	-1.73
Positive affect	28.91	7.83	30.20	8.18	28.26	7.57	-3.77 ***
Negative affect	30.66	9.13	30.33	9.29	30.83	9.05	0.83
General mental health	6.39	3.30	6.13	3.31	6.53	3.29	1.80
Self-control	65.50	9.11	65.04	9.71	65.73	8.80	1.14
Social bonds	52.31	7.46	53.32	7.16	51.80	7.56	-3.13 **
Perceptions of justice	26.64	5.57	27.01	5.41	26.46	5.64	-1.50
Procedural justice	12.01	3.02	12.17	5.41	11.93	3.04	-1.19
Distributive justice	6.10	2.25	6.24	2.34	6.03	2.20	-1.44
Satisfaction with police services	4.24	1.21	4.27	1.20	4.22	1.22	-0.64
Public trust in the government	4.29	1.16	4.33	1.14	4.28	1.17	-0.65

* $p < .05$, ** $p < .01$, *** $p < .001$

Table 3 OLS regression models of self-reported attitudes toward violence

Predictors	Attitudes toward Violence					
	Model 1		Model 2		Model 3	
	<i>B</i>	(<i>SE</i>)	<i>B</i>	(<i>SE</i>)	<i>B</i>	(<i>SE</i>)
Demographic characteristics						
Age	0.03	0.03	0.04	0.03	0.04	0.03
Sex (0 = female, 1 = male)	1.52	0.52 **	1.43	0.52 **	1.56	0.51 **
Religiosity	0.35	0.18 *	0.28	0.18	0.34	0.18 *
Marital status (0 = nonsingle, 1 = single)	-1.67	0.53 **	-1.52	0.52 **	-1.20	0.52 *
Political inclination (0 = pro-establishment, centralist, and politically neutral, 1 = pro-democracy and pro-independence)	1.05	0.66	0.12	0.70	0.09	0.69
Perceptions of justice			0.18	0.05 ***		
Procedural justice					0.48	0.15 **
Distributive justice					-0.46	0.12 ***
Satisfaction with police services					-0.08	0.46
Public trust in the government					0.28	0.45
Psychosocial factors						
Deviant behavior learning	-0.02	0.05	0.01	0.05	0.02	0.05
Positive affect	0.24	0.04 ***	0.25	0.04 ***	0.20	0.04 ***
Negative affect	0.24	0.04 ***	0.23	0.04 ***	0.22	0.04 ***
General mental health	-0.21	0.12	-0.20	0.12	-0.21	0.12
Self-control	-0.14	0.03 ***	-0.15	0.03 ***	-0.10	0.03 ***
Social bonding	0.34	0.04 ***	0.33	0.04 ***	0.32	0.03 ***
Constant	-1.10	2.75 *	-4.27	2.96 *	1.77	3.10 *
Adjusted R ²	0.38		0.39		0.41	
<i>F</i>	53.35 ***		50.74 ***		45.05 ***	

Notes: Unstandardized beta (B) and standard error (SE)

* $p < .05$, ** $p < .01$, *** $p < .001$