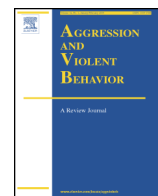




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## Aggression and Violent Behavior



## Juvenile delinquency in Chinese adolescents: An ecological review of the literature

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### ABSTRACT

Juvenile delinquency is a serious concern in China. This article provides a comprehensive review of studies on Chinese juvenile delinquent behaviors over the last two decades. Forty-five peer-reviewed studies were identified through a four-step selection procedure, and their empirical findings were organized according to ecological system theory. The findings indicate that micro-level factors (i.e., age, gender, self-control, parent-child relationship, peer influence, and school attachment), *meso*-level factors (i.e., interactions between self-control, family, and school), *exo*-level factors (i.e., socioeconomic status and community), and macro-level factors (i.e., stereotypes and culture) are associated with increased involvement in juvenile delinquency. Multiple implications for practice and policy are discussed, followed by the limitations of current research and suggestions for future research.

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## 1. Introduction

Juvenile delinquency is an emerging social problem in China (e.g., Deng & Roosa, 2007; Liu & Lin, 2007; Lu, Yu, Ren, & Marshall, 2013; Weng, 2014). Due to effective informal controls, China enjoyed a very low crime rate during the pre-reform era. However, since the mid-1980s, China's modernization has not only resulted in rapid economic development, but also increases in the rate of juvenile delinquency. In the effort to explain the rising juvenile delinquency in China, a comprehensive understanding of the phenomenon is imperative. China provides a unique cultural setting to investigate juvenile deviant behaviors (Zhang, Messner, & Liu, 2008). Unfortunately, only a handful of empirical studies (primarily in Hong Kong) have applied Western theories to investigate delinquency among Chinese adolescents. To the best of our knowledge, no researcher has yet conducted a thorough review of empirical studies conducted so far on juvenile delinquency in China. To address this gap, a systematic review of Chinese empirical studies published during the past decade is much needed. This article therefore aims to offer a systematic summary of the influential factors related to Chinese juveniles' delinquent behaviors. This review covers not only studies conducted in Mainland China, but also in Hong Kong and Taiwan.

The issue of juvenile delinquency is multi-determined. Developmental theories postulate that the age of onset and offending persistency are key factors determining the severity and stability of antisocial behavior. Moffitt's (1993) developmental taxonomy put forward two distinct offender profiles: life-course persistent (LCP) offenders and adolescence-limited (AL) offenders. According to the theory, the two offender profiles are distinct in terms of the age of onset and the duration of antisocial involvement. Relatively few people are LCP offenders, a type of behavior which originates in neurodevelopmental disorder and disadvantaged environments. Persistent and stable antisocial behavior begins in childhood and continues persistently into adulthood. Unlike LCP offenders, AL offenders are quite common in the general population and their antisocial behavior is only temporary and situational. AL offenders desire to overcome the "maturity gap" and obtain equal status with the privileges of adults (i.e., alcohol use, driving, sexual activity). AL offenders' antisocial behavior emerges in adolescence in order to obtain mature privileges and responsibilities, but ceases after transition to adulthood. Though the contributions of Moffitt's (1993) theory have been widely acknowledged, recent review studies have suggested that the theory is in need of revision. Fairchild, van Goozen, Calder, and Goodyer (2013) and Assink et al. (2015) found that the distinctions between LCP and AL offenders appear to be more quantitative than qualitative, which is not consistent with Moffitt's (1993) proposition.

Looking beyond within-individual changes in delinquency, control theories and general strain theory focus on the social factors that restrain or facilitate criminal acts. Control theories (Gottfredson & Hirschi, 1990; Hirschi's, 1969) claim that people are naturally self-seeking and delinquent. Hirschi's (1969) social control theory explains adolescent delinquency as a response to a lack of bonds to conventional society (e.g., family, friends, social norms). It is the external controls of society that restrain people's desire to commit crime. Gottfredson and Hirschi (1990) proposed an internalized mechanism of self-control as the major resistance to criminal impulse. Individuals with low self-control tend to be more impulsive, insensitive, physical, risk-taking, short-sighted, and nonverbal, thus resulting in a greater probability of delinquent behaviors (Gottfredson & Hirschi, 1990). Children with a lack of self-control are at risk of delinquent behavior and will probably

continue their deviant path in adult life. Agnew's (1992) general strain theory views juvenile delinquency as the effect of negative emotions (e.g., anger, anxiety, depression) when individuals find themselves unable to achieve positively valued goals. These negative emotions in turn provide motivation for deviant acts as a way to relieve internal pressure.

Focused on cultural and structural factors, cultural transmission theory and labeling theory place adolescents' antisocial behavior in a larger sociological context for understanding. Cultural transmission theory explains how cultural mechanisms affect the value of behavioral patterns (Cohen, 1955; Miller, 1958). Juveniles' antisocial behavior is a reflection of deviant norms, values, beliefs, and behavioral characteristics, thus all behavior is learned through the culture that surrounds them (Berg & Stewart, 2009). Labeling theory concerns the process of producing delinquency and self-perception as a delinquent (Becker, 1964; Lemert, 1972). This perspective regards juvenile delinquency as a result of society's application of the deviant label to the individual and the individual's response to that labeling.

Longitudinal studies have provided comprehensive understanding of the risk and protective factors of juvenile offending (Farrington, 2011; Farrington, Loeber, & Tfofi, 2012; Loeber & Farrington, 1998). Based on a meta-analytic review, Andrews and Bonta (2010, pp. 58–60) categorized the major risk factors into eight domains: criminal history, antisocial personality pattern, antisocial cognition, antisocial peer associations, family relationships, school performance, leisure activities, and substance abuse. The first four factors, labeled the "big four," have the greatest impact on criminal behavior; the last four factors, labeled the "moderate four," have a slightly weaker but still moderate predictive power for criminal behavior. An improvement of the recent reviews also indicated an association between poor mental health and juvenile delinquency (Colins et al., 2010; Vermeiren, 2003). Lösel and Farrington (2012) reviewed the major protective factors and classified them into four domains: individual factors (i.e., high intelligence, positive attitude, low impulsivity, and easy temperament), family factors (i.e., close parent-child relationship, intensive parental supervision, low physical punishment, and positive parental attitudes toward the child's education), school factors (i.e., sound academic achievement, strong school bonding, support and supervision of teachers), peer factors (i.e., nondeviant peers), neighborhood factors (i.e., nondeprived and nonviolent neighborhood).

The identification of risk and protective factors is important as it can facilitate the development of intervention and prevention programs for adolescents who are at risk of becoming serious offenders. Given that juveniles' antisocial behavior can be facilitated and/or inhibited as a result of the interrelations among multilevel contexts, the current review is best described through a social-ecological approach. Social-ecological systems theory (Bronfenbrenner, 1979) is a multidisciplinary and holistic framework positing that individuals' behavior patterns are formed by the interplay of the immediate environment (family, school, peer groups), broader systems (community, society, culture), and the reciprocal interactions between the different system levels. Bronfenbrenner's (1979) ecological model consists of a set of nested structures – micro-, meso-, exo-, macro-, and chrono-system levels – in which each structure is settled inside the next.

In sum, the present review represents an effort to synthesize the existing knowledge about Chinese juvenile delinquency research within the ecological framework, which has two objectives: (1) to explore the factors related to juvenile delinquent behaviors, and (2) to make recommendations for further research and programs in the context of Chinese social and cultural settings. Following a multilevel review of the major findings, we then concentrate on some of the most pressing concerns

with regard to the study of Chinese juveniles and offer suggestions for more culturally specific prevention and intervention strategies.

## 2. Methods

The databases employed in this review, including Proquest, PsycINFO, Medline, Web of Science, and scholar.google.com, are not restricted to the field of criminology, but also cover the disciplines of public health, psychology, sociology, and social work. Terminology and definitions of 'juvenile delinquent' vary between countries. In the Chinese context, it refers to children in the age range of 14–18 (Wong, 2001). Nevertheless, studies that involve samples of juveniles and mixed samples of both juveniles and young adults (19 years to 24 years) are included in this review. The review considers all kinds of delinquent behavior in order to present a comprehensive picture of Chinese juvenile delinquency. Thus, multiple search words and phrases were purposively selected to capture the relevant empirical studies (Table 1). Constructed by combining terms, search terms were then applied to different databases to search for articles.

In order to cover all relevant studies, a four-step selection procedure was employed in this review. First, the systematic review was limited to peer-reviewed journal articles published between January 1, 1995 and November 31, 2014, and written in English. Although most empirical studies on Chinese juveniles were published in the last decade, the review nevertheless expanded the search to 1995 in order to identify earlier studies in this area. The peer-review selection standard was adopted to ensure that the systematic review covered the highest quality research in the field of Chinese juvenile delinquency. In the initial broad search, 255 articles were identified in the electronic databases (Fig. 1). Second, 185 articles were excluded after screening of titles and abstracts, which left 70 potentially relevant papers. The full texts of the remaining 70 articles were then obtained and examined in order to develop a set of inclusion/exclusion criteria. In the third step of the search, more narrowly focused criteria were adopted to raise the quality for the final systematic review. The studies included had to be based on quantitative designs with a sample larger than 500 participants. Studies with smaller samples, literature reviews, reports, and conference papers were all excluded due to concerns of methodological quality. At this stage, 39 articles were identified as meeting the inclusion/exclusion criteria. To ensure that the search had captured all relevant articles, an additional search was conducted, including reference checking, citation tracking, and key author searching. After evaluating the selected studies separately against the inclusion/exclusion criteria, six more studies were included, leaving a final sample of 45 studies.

The analysis of the 45 studies identified consisted of two steps. In the first, data extraction, we tabulated the key features of each study for further evaluation, including influential factors, sample characteristics, study location, and type of delinquency (see Table 2). Second, based on these tabulations, we classified studies into different ecological levels. Table 3 provides a summary of individual, family, peer, school,

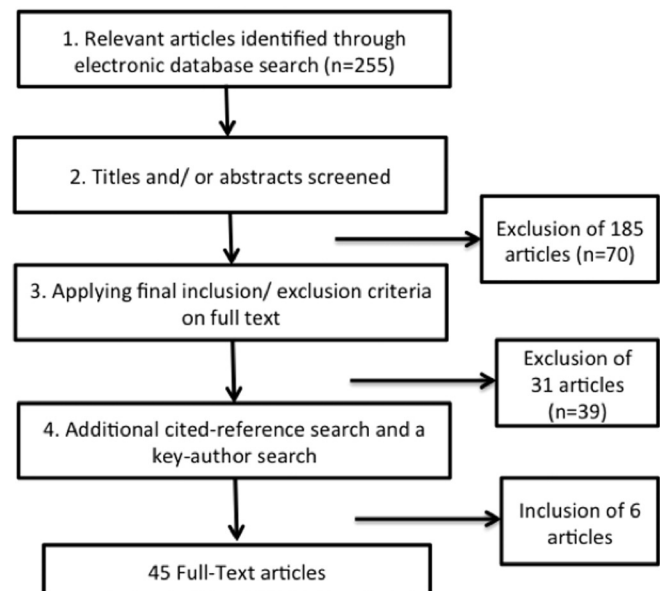


Fig. 1. Flowchart of selection procedure for systematic review.

community, and cultural factors under four subsections: microsystem, mesosystem, exosystem, and macrosystem. In the column of degree of support, consistent empirical support indicates all findings regarding the factor are statistically significant and homogeneous across studies. Inconsistent empirical support is defined as having both positive and negative empirical evidence (mixed results), or a nonsignificant result.

## 3. Ecological systems analysis

### 3.1. Microsystem

The microsystem is defined as a pattern of activities, social roles, and interpersonal relations that commonly occurs in the direct environment in which the individual is embedded (Bronfenbrenner, 1994). Juvenile offenders' daily interactions with people and social groups are directly associated with their behavior. In the section that follows, we will consider four factors at the microsystem level closest to the individual adolescent, namely, youth characteristics, parent-child relationship, peer relationships, and school attachment.

#### 3.1.1. Youth characteristics

Characteristics of youths such as socio-demographic factors (e.g., gender and age) and personality traits (e.g., self-control ability) have been shown to affect the risk of delinquency (e.g., Cheung & Tse, 2011; Cheung, 2013, 2014; Ma, Shek, Cheung, & Lee, 1996).

**3.1.1.1. Gender.** A majority of empirical studies conducted in Mainland China, Hong Kong, and Taiwan have demonstrated that male adolescents are, in general, significantly more likely to commit delinquent acts than their female counterparts (e.g., Chen & Wei, 2013; Cheung & Tse, 2011; Cheung, 2014; Chui & Chan, 2012, 2013; Liu & Lin, 2007; Lu et al., 2013), which is consistent with the findings of Western studies (e.g., Daigle, Cullen, & Wright, 2007; Junger-Tas, Ribeaud, & Cruyff, 2004). Differences between male and female adolescents may be more notable in China than in Western countries due to the long tradition of Confucian gendered values, which place much emphasis on gender separation (Liu & Lin, 2007). In a large-scale sample of 6719 Chinese middle school students, Xin, Zhou, Bray, and Kehle (2003) found significant gender differences, with males more likely to engage in substance use, physical aggression, self-centered behavior, and delinquent behavior. Additionally, male respondents have been found to be significantly more likely to hold deviant beliefs and have delinquent friends (Liu &

**Table 1**  
Search terms for identifying Chinese juvenile delinquency.

Term group 1 (population)	AND	Term group 2 (region)
Juvenile delinquent* OR		
Young delinquent* OR		
Adolescent delinquent* OR		Chinese OR
Teen offend* OR		China OR
Juvenile offend* OR		Hong Kong OR
Young offend* OR		Taiwan
Adolescent offend* OR		
Juvenile probation* OR		
Youth crim* OR		
Youth at risk OR		
Young people at risk OR		
Teen* at risk		

**Table 2**  
Description of the reviewed articles (N = 45).

No.	Author (year)	Sample characteristics	Location	Type of delinquency
1	Cheung (1997)	N = 1139 students, ages 12–20	HK	General delinquency
2	Cheung (2013)	N = 4734 students, ages 12–23	HK	Gambling behavior
3	Cheung (2014)	N = 4734 students, ages 12–23	HK	Gambling behavior, substance use, general delinquency
4	Cheung and Cheung (2006)	N = 504 students and 504 marginal youth, ages 14–19	HK	Substance use
5	Cheung and Cheung (2008)	N = 1015 students, ages 14–19	HK	General delinquency, property delinquency, violent delinquency
6	Cheung and Cheung (2010)	N = 1015 students, ages 14–19	HK	General delinquency
7	Cheung and Tse (2008)	N = 2051 students, ages 8–16	HK	Substance use
8	Cheung and Tse (2011)	N = 1746 students, 4th to 7th graders	HK	Aggression in school
9	Chou (2003)	N = 512 students, ages 16–18	HK	General delinquency
10	Chui and Chan (2012)	N = 1377 students, ages 12–17	HK	Theft and violent crime
11	Chui and Chan (2013)	N = 1377 students, ages 12–17	HK	Theft and violent crime
12	Davis et al. (2004)	N = 718 students, ages 12–18	HK	Negative school behavior, misdemeanor, general delinquency
13	Ma (2005)	N = 505 students, ages 12–18	HK	General delinquency
14	Ma et al. (1996)	N = 2862 students, 7th to 10th graders	HK	General delinquency
15	Shek (2005)	N = 1519 students, ages 11–18	HK	Substance use and general delinquency
16	Chen and Astor (2010)	N = 3058 students, 7th to 9th graders	TW	School violence
17	Chen and Wei (2013)	N = 1650 students, 7th to 9th graders	TW	School violence
18	Lin and Mieczkowski (2011)	N = 1150 students, ages 13–17	TW	General delinquency
19	Lin et al. (2013)	N = 1717 Taiwanese students and 1516 American students, 6th to 12th graders	TW/U.S.	General delinquency
20	Yang and Hoffmann (1998)	N = 1704 students, ages 13–17	TW	General delinquency
21	Yeh (2011)	N = 724 students, average ages 13	TW	General delinquency
22	Bao et al. (2007)	N = 615, ages 13–18	Mainland	General delinquency
23	Bao et al. (2012)	N = 615, ages 13–18	Mainland	General delinquency
24	Bao et al. (2014)	N = 2758 students, ages 13–15	Mainland	General delinquency
25	Cheung et al. (2007)	N = 1026 Mainland students and 1116 HK students, ages 12–19	Mainland/HK	General delinquency
26	Deng and Roosa (2007)	N = 934 students, ages 11–17	Mainland	General delinquency
27	Greenberger et al. (2000)	N = 502 Chinese adolescents, 391 Korean adolescents and 201 American adolescents, ages 16–17	China/Korea/U.S.	General delinquency
28	Jessor et al. (2003)	N = 1739 Chinese students and 1596 American students, 7th to 9th graders	China/U.S.	Delinquent behavior and substance use
29	Liu (2011)	N = 1866, 7th to 8th graders	Mainland	General delinquency
30	Liu (2012)	N = 1735, 7th to 8th graders	Mainland	General delinquency
31	Liu and Lin (2007)	N = 1712, 7th to 8th graders	Mainland	General delinquency
32	Liu, Lin, and Chen (2010)	N = 2214 students, majority ages 12–13	Mainland	School-related delinquency and general delinquency
33	Lu et al. (2013)	N = 1043 students, ages 12–17	Mainland	Risky behavior and minor delinquency
34	Ngai et al. (2007)	N = 229 HK delinquents and 609 Mainland delinquents, average age 16	Mainland/HK	Gang involvement
35	Pyrooz and Decker (2012)	N = 2245 students, average age 18	China	Gang involvement
36	Shen et al. (2012)	N = 171 Mainland students, 419 HK students and 386 TW students, average age 15.9	Mainland/HK/TW	Dating violence
37	Wang et al. (2012)	N = 1719 students, 7th to 9th graders	China	Physical aggressive behaviors
38	Webb et al. (2011)	N = 1043 Chinese students and 2401 American students, majority ages 12–15	China/U.S.	Gang involvement
39	Wei et al. (2004)	N = 565 Chinese and 903 Australian students and juvenile offenders, ages 11–22	China/Australia	General delinquency
40	Xin et al. (2003)	N = 6719 students, 3rd to 5th graders	Mainland	Physical aggression, substance use, delinquency, and self-centered behaviors
41	Zhang and Messner (1999)	N = 443 nondelinquents and 369 delinquents, ages 15–25	Mainland	Official offense
42	Zhang (2003)	N = 443 nondelinquents and 369 delinquents, ages 15–25	Mainland	Official offense
43	Zhang and Messner (1995)	N = 443 nondelinquents and 369 delinquents, ages 15–25	Mainland	Official offense
44	Zhang and Messner (1996)	N = 443 nondelinquents and 369 delinquents, ages 15–25	Mainland	Official offense
45	Zhang et al. (1997)	N = 654 incarcerated youth, ages 15–25	Mainland	Gang involvement

Note: Mainland = Mainland China, HK = Hong Kong, TW = Taiwan.

Lin, 2007; Ma et al., 1996). Thus male adolescents were found to be less conventional and more prone to delinquency than female counterparts.

**3.1.1.2. Age.** Chinese studies have yielded inconsistent findings with respect to the age effect on adolescent delinquent behavior. Chen and Astor (2010) and Cheung (2013) reported that the prevalence of violent behavior declines as age increases among high school students in Hong Kong and Taiwan; conversely, both Cheung and Tse (2011) and Cheung and Cheung (2010) observed a significant positive relationship between age and frequency of deviance. Some Western studies have proposed that the prevalence of juvenile offending follows an age-crime curve that rises rapidly during early adolescence, peaks in mid-late teenage

years, and steadily declines thereafter (Farrington, 1986; Gottfredson & Hirschi, 1990; Shulman, Steinberg, & Piquero, 2013). The inverted U-shaped relationship between age and crime also has received support from the findings of Chinese studies (Cheung, 1997; Wei, Homel, Prichard, & Xu, 2004; Zhang, Messner, Lu, & Deng, 1997). Cheung (2014) described a change in the age-crime curve of gambling in a sample of 4734 Hong Kong adolescents, that substance use and other delinquent conducts peaked at the age of 16 and then declined at a stable rate. Zhang et al. (1997) and Wei et al. (2004) consistently indicated a pattern of sharp incline in the prevalence of delinquency from around the age of 16, followed by a slight decline and stabilization in early adulthood.



**Table 3**  
Summary of factors influencing juvenile delinquency in selected studies (N = 45).

Ecological level	Influential factors	Empirical evidence	Degree of support
<b>Microsystem</b>			
Youth characteristics			
Gender	Male	Chen and Wei (2013); Cheung (2014); Cheung and Cheung (2010); Cheung and Tse (2011); Cheung et al. (2007); Chui and Chan (2012, 2013); Deng and Roosa (2007); Greenberger et al. (2000); Lin and Mieczkowski (2011); Liu (2011); Liu and Lin (2007); Lu et al. (2013); Ma (2005); Ma et al. (1996); Pyrooz and Decker (2012); Xin et al. (2003)	Consistent empirical support
Age	Senior adolescent	Chen and Astor (2010); Cheung (2013, 2014); Cheung and Tse (2011); Liu (2011); Zhang et al. (1997); Wei et al. (2004); Xin et al. (2003)	Inconsistent empirical support
Self-control	Low self-control	Cheung (2013, 2014); Chui and Chan (2013); Lu et al. (2013); Pyrooz and Decker (2012); Wang et al. (2012)	Consistent empirical support
<b>Family</b>			
	Low parental attachment	Bao et al. (2012); Cheung (1997, 2013); Cheung et al. (2007); Cheung and Cheung (2006, 2008); Chui and Chan (2012); Davis et al. (2004); Deng and Roosa (2007); Liu et al. (2010); Lu et al. (2013); Ngai et al. (2007); Pyrooz and Decker (2012); Yang and Hoffmann (1998); Yeh (2011); Zhang and Messner (1995)	Inconsistent empirical findings on parental support
	Poor parental supervision		
	Severe discipline		
Peer	Ineffective parenting style		Consistent empirical support
	Hostile family environment		
School	Association with deviant peers	Bao et al. (2012); Chen and Astor (2010); Cheung and Tse (2011); Cheung (1997, 2013); Cheung and Cheung (2008); Davis et al. (2004); Greenberger et al. (2000); Ma et al. (1996); Pyrooz and Decker (2012); Zhang and Messner (1995)	Consistent empirical support
	Gang involvement		
	Negative relationships with teachers	Bao et al. (2007); Bao et al. (2012); Bao et al. (2014); Cheung (2013); Cheung and Cheung (2006, 2008); Chen and Astor (2010); Chui and Chan (2012); Davis et al. (2004); Lin and Mieczkowski (2011); Liu (2012); Liu and Lin (2007); Ma et al. (1996); Ngai et al. (2007); Zhang and Messner (1996)	
	Weak school attachment		
	Poor academic performance		
<b>Mesosystem</b>			
	Life strain associated with low self-control	Cheung (2013); Cheung and Cheung (2008, 2010)	More research needed
	School strain associated with poor parent-child relationship	Bao et al. (2007); Bao et al. (2012); Cheung and Tse (2008); Jessor et al. (2003); Yeh (2011)	More research needed
<b>Exosystem</b>			
SES	Economic disadvantage	Bao et al. (2007); Liu and Lin (2007); Ngai et al. (2007); Shek (2005); Yeh (2011); Zhang and Messner (1995)	Inconsistent empirical support
Community	Low income family		More research needed
	Low parental education level		
	Community disorganization	Cheung (2013); Yang and Hoffmann (1998); Zhang and Messner (1999)	
	Neighborhood residents in poverty		
Macrosystem	High community population density		More research needed
	Weak bond to community organizations		
	Stereotypes and labeling	Holding male dominant cultural gender belief	
Confucianism and Collectivism	Exposure to negative labeling		More research needed
	Less restrained by traditions	Cheung et al. (2007); Chou (2003); Ngai et al. (2007)	
	Individuation		

**3.1.1.3. Self-control.** Self-control has been shown to be a strong and consistent predictor of crime and deviance in Chinese studies (e.g., Cheung, 2014; Chui & Chan, 2013; Lu et al., 2013). Self-control is seen as a stable personality trait that can critically inhibit individuals' desire to commit crime (Gottfredson & Hirschi, 1990). Lu et al. (2013) investigated a sample of 1043 school students in Hangzhou and found that juveniles who lack self-control have a higher rate of minor risky (smoking, drinking) and delinquent behavior (vandalism, weapon carrying, group fighting). In addition, lack of self-control has been identified as significantly associated with peer physical aggression among 1719 rural students in Henan Province (Wang, Chen, Xiao, Ma, & Zhang, 2012). Besides aggressive behavior, low self-control has also been found to predict gang involvement (Pyrooz & Decker, 2012), pathological gambling (Cheung, 2013, 2014), substance use (Cheung, 2014), theft and violent crime (Chui & Chan, 2013) among Chinese adolescents.

### 3.1.2. Parent-child relationship

Family has long played a dominant role in Chinese life (Zhang et al., 2008; Zhang & Messner, 1995); a strong parental bond is thus assumed among Chinese adolescents. Empirical findings in Hong Kong and Mainland China have indicated that healthy parent-child attachment can effectively prevent adolescents from engaging in delinquent activities, while poor parent-child bonding tends to indicate a higher tendency toward deviant conduct (Cheung & Cheung, 2006, 2008; Chui & Chan, 2012; Lu et al., 2013; Ngai, Cheung, & Ngai, 2007). Further gender-

based research on a sample of 1377 Hong Kong adolescents has indicated that inadequate parental bonding may be more conducive to violent conduct in male adolescents and theft-related behavior among their female counterparts (Chui & Chan, 2012). In another large study of 1924 middle school students in Fuzhou City, Liu et al. (2010) reported that adolescents who are an only child receive more positive responses from their parents than peers with siblings, which accounts for lower levels of delinquent participation.

Of particular note is the fact that there are disparities in the findings with respect to the effect of parental influence. The parent-child relationship in China is hierarchical rather than equal according to Confucian doctrine (Deng & Roosa, 2007). The Chinese parenting style is therefore characterized by austerity and restrictions (Cheung, Ngai, & Ngai, 2007; Cheung, 1997; Lin & Mieczkowski, 2011). Though less-monitored children have shown higher frequency of gang involvement (Pyrooz & Decker, 2012), the controlling parental style has also been found to lead to conflict and misunderstandings because of children's desire for individuation and independence (Cheung et al., 2007). Cheung et al. (2007) probed the effects of differences in parental influence on delinquency between Guangzhou and Hong Kong adolescents. Interestingly, they found that parental support deterred juvenile delinquent behaviors in Hong Kong, while parental support in Guangzhou was positively related to delinquency, especially among those whose mother did not work. It is possible that parental support in Guangzhou is more compelling and demanding, in sharp contrast with the West and

Hong Kong, where parental support is more liberal and equal (Cheung et al., 2007). Cheung et al. (2007) also indicated that the adolescent children of unemployed Mainland mothers present significantly higher levels of delinquency and violence, as these mothers are less educated and less capable of providing effective parenting than Hong Kong mothers. Similar findings affirm the concerns of an ineffective parenting style in China. In a mixed sample of general adolescents and officially designated delinquent juveniles in Tianjin, harsh parental discipline and spoiling turned out to be the most significant predictors of official delinquent status (Zhang & Messner, 1995). In addition, empirical studies have reported that harsh family environments involving elements such as coercive parenting, intense arguments, and parental maltreatment are fertile ground for antisocial and delinquent acts (Bao, Haas, Chen, & Pi, 2012; Cheung, 2013; Cheung & Cheung, 2008; Davis, Tang, & Ko, 2004; Yang & Hoffmann, 1998; Yeh, 2011).

### 3.1.3. Peer influence

Having delinquent peers stands out as a particularly salient predictor of delinquency in Chinese adolescents (e.g., Bao et al., 2012; Chen & Astor, 2010; Cheung, 2013). Due to rapid social changes in recent decades, the erosion of parental influence seems to indicate changing themes in Chinese adolescents' social lives, from family ties to peer networks (Bao et al., 2012). Peer groups serve as an important source and reinforcement of both prosocial and antisocial behavior among teenagers (Cheung & Tse, 2011; Cheung, 1997). Using data collected from offenders and non-offenders in Tianjin, Zhang and Messner (1995) illustrated the importance of friends' deviance on individuals' official delinquent status, even after controlling for family and neighborhood influences. Similarly, a cross-cultural survey has identified Chinese adolescents who perceived their close friends as deviant as more likely to engage in delinquency themselves (Greenberger, Chen, Beam, Whang, & Dong, 2000).

Cheung (1997) further showed that the negative influence of delinquent peers was not easily counteracted by the positive effect of parental attachment (Cheung, 1997). Moreover, Cheung and Tse (2011) argued that it is the friends' quality rather than their quantity that exerts an effect on adolescents' aggression. Ma et al. (1996) explored the gender difference in deviant peer influence. Their results imply that negative peer influence is significantly stronger among males than females – unlike the peer interactions among female adolescents, male antisocial peer associations seem to become a training ground strengthening delinquent conducts (Ma et al., 1996). Adolescents who maintain close contact with deviant peers are considered more likely to engage in delinquent behavior, which in turn causes them to have a greater tendency to join youth gangs (Pyrooz & Decker, 2012).

### 3.1.4. School attachment

The influence of school on adolescent behavior is quite significant, especially in the Chinese context, which emphasizes academic achievement (Bao et al., 2012; Liu, 2012; Liu & Lin, 2007; Zhang & Messner, 1996). Similar to the authoritarian parenting style in China, teaching is perceived as a strict discipline. Empirical studies have provided support for the hypothesis that strong school attachment reduces the likelihood of delinquency (Cheung, 2013; Pyrooz & Decker, 2012; Zhang & Messner, 1996), whereas students who have negative relationships with their teachers have reported a greater likelihood of delinquency (Bao et al., 2012; Bao, Haas, & Pi, 2007; Chen & Astor, 2010; Cheung, 2013; Lin & Mieczkowski, 2011). A positive school environment has been identified as a salient protective factor for adolescents hindering delinquent conduct (Bao, Li, Zhang, & Wang, 2014; Davis et al., 2004). Zhang and Messner (1996) observed an inverse relationship between school quality and official delinquent status, as high-quality schools are characterized by high academic quality and strict supervision.

School commitment and academic achievement have been proven to be significant factors of negative school behavior among students (Cheung & Cheung, 2008; Chui & Chan, 2012). Empirical findings have

demonstrated a positive linkage between school failure and delinquency in Chinese students (Chen & Astor, 2010; Cheung, 2013; Cheung & Cheung, 2006; Ma et al., 1996). The reason for this may be that students who do poorly in school tend to suffer tremendous stress, which may motivate them to turn to delinquency for pressure relief (Liu, 2012; Liu & Lin, 2007). Cheung and Cheung (2006) argued that marginal youths suffer more educational disadvantages – such as educational underachievement and diminished educational effort – than the average student. This unsatisfactory academic performance reduces students' interest in school, which may further reinforce their belief that school is a negative environment. Negative school experiences have also been found to have a salient effect on juvenile delinquency (Cheung & Cheung, 2008).

### 3.2. Mesosystem

The mesosystem consists of interrelations among two or more microsystems each containing the developing person (Bronfenbrenner, 1994). Experiences in one direct setting (e.g., family environment) may influence interactions in another (e.g., adolescents' school performance). These interactions can shed light on the mechanism of delinquent behavior. The mesosystem analysis in this review focuses on adolescents' experiences of strain in families and schools. Chinese researchers have pointed out that when exposed to life strain, adolescents with low self-control and poor parental attachment are at a significantly higher risk of deviant strategies for coping with negative emotions (e.g., Bao et al., 2007; Cheung & Cheung, 2008, 2010).

Two interactive relationships are explicated here. The first comprises the interplay between strain, self-control, and their combined effect on delinquent coping. Despite a direct strain-delinquency association, Cheung and Cheung (2008, 2010) found that self-control exerted a moderating effect on the strain-delinquency relationship. That is, strained adolescents who exhibit a higher level of self-control are less likely to be delinquent, suggesting that high self-control can protect stressed Chinese adolescents, helping them to stay away from crime. Cheung (2013) presented consistent evidence that the association between strain and youth problem gambling is weakened by stronger individual self-control. The second mesosystem involves the interactions between adolescents' achievement strains, parental influence, and delinquent participation. Parental support has been shown to have a buffering effect on delinquency when adolescents experience frustrations in school, with support from parents mitigating the negative strain effects (Bao et al., 2007). The protective effect of parental attachment becomes weaker when adolescents report higher magnitudes of strain or stress (Liu, 2011). Bao et al. (2012) also indicated that the effect of stressful school experiences is exacerbated especially when adolescents report weak parental attachment and strong delinquent peer association: the combined effect of parents and peers leads to more delinquent behaviors. Consistent findings have emerged in Hong Kong and Taiwan as well. Cheung and Tse (2008) revealed that when teenagers experience contextual stress or unhappiness, drug provision by others becomes an important external force inducing substance use in Hong Kong pupils. Similarly, Yeh (2011) found that negative emotions aroused by parent-child conflicts can easily trigger problem behaviors among Taiwanese adolescents.

### 3.3. Exosystem

The exosystem is depicted as a larger environment that contains the relationships between two or more interactions or settings, of which the developing person is only directly involved in one (Bronfenbrenner, 1994). Within the context of juvenile offending in China, two exosystem-level factors are identified here: socioeconomic status and community environment.

### 3.3.1. Socioeconomic status (SES)

Socioeconomic disadvantage is a potential contributor to increased delinquent involvement (Agnew, Matthews, Bucher, Welcher, & Keyes, 2008; Santiago, Wadsworth, & Stump, 2011). Shek (2005) argued that perceived economic stress (i.e., current economic hardship and future economic worry) is significantly related to adolescent substance abuse and delinquent behavior. Findings in adolescents from Shanghai and Taiwan show that a low level of paternal education is significantly associated with a higher frequency of problem behaviors (Ngai et al., 2007; Yeh, 2011). Similarly, maternal education is a distinctive positive predictor of gang involvement in Hong Kong adolescents (Ngai et al., 2007), albeit in a converse direction. Ngai et al. (2007) explicated that mothers with higher educational levels may spend more time on their work and social life, which can lead to inadequate supervision of their children. Studies on Mainland adolescents confirm that Family SES is inversely related to the prevalence of delinquency (Bao et al., 2007; Zhang & Messner, 1995). Interestingly, Liu and Lin (2007) found that family finances exhibited a positive association with deviance, possibly because children from high-income families are more likely to be spoiled by their parents.

### 3.3.2. Community environment

Considering that families and schools are embedded in the community, it seems clear that disadvantaged community environments can facilitate delinquent behavior (Leventhal & Brooks-Gunn, 2000), due to inadequate neighborhood supervision and street crime. Yang and Hoffmann (1998) provided evidence that communities characterized by lower income and higher population density are likely to foster greater deviant behaviors among Taiwanese adolescents. Cheung (2013) indicated that exposure to disadvantaged neighborhoods (e.g., poorly maintained facilities, noisy neighbors, community crime) is more likely to evoke psychological stress in adolescents, which in turn contributes to an increased likelihood of gambling behavior in Hong Kong students. In Mainland China, the work unit is a primary community institution bonding members of society together. Zhang and Messner (1999) revealed that the strength of residents' bonds to their work units exhibited a substantial effect in restraining antisocial impulses.

## 3.4. Macrosystem

The macrosystem level considers aspects of the broader environment, such as cultural beliefs, lifestyles, and opportunity structures that ultimately affect the social structures and activities in the immediate system level (Bronfenbrenner, 1994). Two macrosystem-level factors that are particularly relevant to juvenile delinquency in China are social stigma and cultural values.

### 3.4.1. Stereotypes and social labeling

In the process of gender-role socialization, boys and girls are educated differently, especially under the influence of Chinese tradition (Liu & Lin, 2007). The public tends to be more tolerant of certain forms of unconventional behavior in males than in females. Chinese girls receive more attention and supervision from parents (Deng & Roosa, 2007), and are taught to be family-oriented and behave in a conforming manner (Cheung, 1996). Ma (2005) investigated the influence of gender-role stereotypes on antisocial behavior in a sample of Chinese adolescent boys. Masculine participants were found to be more antisocial than those with feminine gender-role tendencies. A gender-role stereotype that matches one's biological gender (e.g., masculine boys) is more salient in predicting one's antisocial behavior than gender-role stereotypes incongruent with one's biological gender (e.g., masculine girls) (Ma, 2005). Following a gender-role approach, Shen, Chiu, and Gao (2012) investigated the perpetration of dating violence and victimization among Taiwan, Hong Kong, and Shanghai adolescents. Their results indicate that Chinese boys who internalize gender-role stereotypes are

more likely to perceive dating violence as an acceptable behavior and tend to perpetrate more sexual violence than those who endorse relatively more equalitarian gender-role views.

Studies have documented that negative labeling by parents (Cheung, 1997), teachers (Cheung & Cheung, 2008), and the wider community (Zhang, 2003; Zhang & Messner, 1995) may induce delinquent behavior in adolescents. Zhang and Messner (1995) indicated that children from families with a history of deviance are at a high risk of being labeled officially as delinquents themselves. Zhang (2003) further implied that being labeled officially as a delinquent can adversely affect the self-esteem of youths in China. In such a collectivist society, strong community shaming and forgiveness are likely to make officially labeled individuals feel shamed and embarrassed once reintegrated into the community, which may significantly reduce their self-esteem (Zhang, 2003).

### 3.4.2. Confucianism and collectivism

As previously noted, China has a long history of Confucian principles and collectivism. The Confucian doctrine of personality emphasizes the concept of self-discipline as a way to suppress individual pursuits and fulfill collective interests to the maximum (Cheung & Cheung, 2008, 2010; Lu et al., 2013). Teenagers raised in the Chinese culture are thus subject to strict supervision from family, school, and the community. As a result, Chinese adolescents appear to show less individual autonomy and to acquire stronger self-control restraining deviance (Cheung & Cheung, 2008, 2010; Lu et al., 2013). Empirical studies comparing Chinese and Western adolescents have observed cultural influences on juvenile delinquency (Greenberger et al., 2000; Webb, Ren, Zhao, He, & Marshall, 2011; Wei et al., 2004). Chinese teenagers are more restricted and closely bonded to their family and community than their Australian counterparts, which Wei et al. (2004) associated to the relatively lower rate of delinquency in China. Congruent results were found by Webb et al. (2011) and Greenberger et al. (2000), in that Chinese adolescents reported much lower gang participation rates and significantly less misconduct than their more individualistic U.S. counterparts.

As Confucian doctrines link education and success with family honor and pride, students in China generally experience intense academic stress (Bao et al., 2012; Liu, 2011). Particularly due to the one-child policy – parents being restricted to have only one child as a means of population control – parents are inclined to have overwhelming expectations for their child's academic success (Bao et al., 2012; Cheung, 2014; Liu & Lin, 2007). However, the dramatic social changes of recent decades have not only diminished the collectivistic and Confucian traditions, but also created opportunities for the development of Western culture among the younger generation (Jessor et al., 2003). Parents' dictatorial demands and excessive requirements may consequently be ineffective in controlling Chinese adolescents who embrace new ideas of freedom and independence (Chui & Chan, 2012; Lin & Mieczkowski, 2011). Chou (2003) demonstrated a positive association between individuation and problem behavior among Hong Kong adolescents. This in turn leads Chinese adolescents to feel less restricted by society, thus making them more vulnerable to strain-related delinquency (Lin & Mieczkowski, 2011).

## 4. Discussion

This ecological review of studies conducted in the last two decades sheds some light on the importance of multilevel factors as well as the interplay between them and their effects on Chinese juvenile delinquency. A more comprehensive understanding of such variables facilitates appropriate prevention and intervention strategies. Inspired by ecological findings, the next section discusses practical and policy implications concerning Chinese adolescents who are involved in delinquency.



#### 4.1. Microsystem

The analysis of youth characteristics indicates that delinquency prevention should be gender-specific, so that the different needs of male and female offenders can be addressed. Contradicting several Western studies which indicate that girls suffer more severe mental health problems than boys (Stewart & Trupin, 2003; Teplin et al., 2006; Timmons-Mitchel et al., 1997), Chinese boys have been found to be more prone to frustration over status achievement than Chinese girls, for Chinese parents always place higher hopes of success on male adolescents (Liu & Lin, 2007). Bao et al. (2007) further revealed that female adolescents are more likely to turn to social support outlets when experiencing strain, while male counterparts tend to externalize strains with passive coping strategies such as making delinquent friends, thus amplifying the effect of strain on delinquent behavior. With respect to the practical implications of these findings, youth services should adjust their protocols according to gender difference in adolescents. Youth workers should teach Chinese boys useful coping strategies to deal with stress and frustration in school (Bao et al., 2007). Moreover, due to the established salient predictive effect of self-control, preventative services could be more effective if more attention were paid to identifying adolescents with low self-control. Western evidence has shown that the development of impulse control in early childhood is effective in reducing children's antisocial behavior in the long term (Broidy, Nagin, & Tremblay, 1999; Tremblay, 1998). Therefore, early parental intervention should focus on helping children to acquire self-control strategies during the preschool years, so that their propensity to delinquency is potentially prevented or reduced.

Second, the review by Lösel and Farrington (2012) has shown that a healthy and secure parent-child relationship can effectively restrain deviant conduct in children. However, the prevalence of Western beliefs of equality and mutual respect has posed tremendous challenges to traditional coercive parenting (Cheung et al., 2007). What is worse, Chinese parents generally lack appropriate strategies to prevent their children from engaging in delinquent activities (Deng & Roosa, 2007). It is thus critical to recognize the necessity of shifting parenting styles in light of China's modernization. Although Assink et al.'s (2015) meta-analysis suggested that in Western families the father, as the male role model, has a more influential effect on the development of negative behavior than the mother, Chinese mothers still play traditional roles in raising their children and the review shows that they have a crucial effect on children's antisocial behavior. Family-based approaches like Parent Management Training (PMT) to improve positive parenting are required. PMT is an effective intervention for adolescents' antisocial behavior (Kazdin, 1997) which attempts to change parenting strategies by reducing physically abusive behavior and using proactive forms of discipline to develop clear standards for children's behavior (Wasserman & Miller, 1998). Given the loosening of extended family networks in China, it is particularly important to raise parents' awareness and effective parenting capabilities (Cheung et al., 2007). Social workers in China need to provide adequate training to enhance the effectiveness of parental support (Cheung et al., 2007; Chui & Chan, 2012).

Third, Chinese adolescents are now more likely to rely on peers than parents. Steinberg's (1987) investigation into American youth found that the association with peers is magnified when adolescents have little interaction with their parents. Peer-based preventive measures should be more focused on reducing contact with delinquent friends and promoting the development of prosocial skills. Bao et al. (2012) suggested that the deviant reinforcement of peer groups could be offset if adolescents were given more opportunities to participate in conventional activities. In line with this assertion, youth workers need to encourage adolescents to engage in activities (e.g., community services) to strengthen their bonds to conventional agencies, and thus reduce the likelihood of exposure to and bonding with deviant peers. More importantly, adolescents need to be trained in how to resist the influence of deviant friends. Learning from peer models is another strategy

commonly adopted by Chinese schools. Chinese youths are required to assess their own thoughts and behaviors in relation to the standards of a merit student through a process of self-reflection, thereby promoting socially desirable values and behaviors (Zhang & Messner, 1996). Peer mediation (Hawkins, Catalano, & Brewer, 1995) is a widely used intervention in Western school settings which has positive effects (Toison, McDonald, & Moriarty, 1992). Social workers or teachers train adolescents to act as mediators in schools by active listening, communicating, identifying points of agreement, and reaching nonviolent solutions to conflicts (Brewer, Hawkins, Catalano, & Neckerman, 1995). Due to the importance of peer acceptance and peer association, the application of peer mediation programs in China may be more effective than traditional interventions.

Lastly, the role of the school is vital in preventing juvenile delinquency in contemporary China. As academic achievement is of the utmost concern in Chinese society, students with poor school performance are more likely to be labeled failures and to be excluded from school activities, which could easily trigger their path to delinquency (Bao et al., 2012; Cheung, 1997; Zhang & Messner, 1996). In terms of interventions, all parties in school settings should be involved in promoting a positive school environment for students (Bao et al., 2014). Teachers are of vital importance in fostering students' prosocial attitudes and behaviors; they thus need to pay more attention to lower-achieving, frustrated adolescents (Bao et al., 2012). The encouragement, care, and support of teachers can help students to cope with stressful school experiences and therefore strengthen their attachment to school (Cheung, 1997). School social workers should provide supportive services to promote mutual communication and understanding between teacher and student. In terms of policy implications, policymakers should make a concerted effort to allocate educational resources to schools with poor conditions (e.g., chaotic environments, poor academic quality), by providing funds, holding training sessions, or recruiting experienced professionals to improve the school environment.

#### 4.2. Mesosystem

The interactions in the mesosystem indicate two important sources of social support for Chinese adolescents, namely family and school. Difficult relationships with parents and teachers, and negative school experiences, are two main sources of strain that lead juveniles to delinquent roles. Several promising school programs in the U.S., such as the Seattle Social Development Project (SSDP) and Raising Healthy Children (RHC), take the form of integrated interventions that address multiple risk and protective factors in individual, school, and family domains (Catalano, Oesterle, Fleming, & Hawkins, 2004). These programs are ecology-based, consisting of child social and emotional skill development, teacher training, and parent intervention, which have demonstrated effectiveness in reducing aggressive behavior in children (Catalano et al., 2003; Hawkins et al., 1992). Inspired by American comprehensive programs, parents, teachers, and social workers need to work together to enhance at-risk youths' attachment to conventional relationships in order to cut off their path to deviance. Today, young people generally encounter elevated strains in contemporary China, where school work is onerous, competition is fierce, and family stakes are high (Bao & Haas, 2009; Cheung, 1997).

As higher levels of self-control may buffer the delinquency-generating impact of stress, efforts need to be made to enhance adolescents' capacity for self-control. Wang et al. (2012) introduced life skills education as an intervention strategy to prevent youth violence, incorporating techniques such as pressure release, impulse control, victim empathy, emotional self-regulation, and conflict management in order to help young people to improve their self-control skills. Evidence from a gang intervention program in New York also shows that interpersonal skill training can improve problem-solving skills and anger control, reducing youth violence (Goldstein & Glick, 1994). Simultaneously, as the high pressure and frustrations experienced by



adolescents have been shown to erode traditional bonds, concentrated efforts should focus on relieving adolescents' stress, especially in dealing with negative experiences in school. Social workers and school counselors should assist young people to develop the necessary skills, knowledge, and coping strategies to deal with academic stress (Liu, 2011).

#### 4.3. Exosystem

As a traditionally collectivist society, Mainland China has long maintained strong community cohesion. However, due to increasing migratory mobility and high-rise residential buildings, the bond between the work unit and its workers has gradually weakened. Diminished neighborhood integration becomes a challenge when one is looking to restrain criminal offending in communities (Ngai et al., 2007; Zhang & Messner, 1999). As noted by Farrington (2000), many longitudinal studies in Western countries investigated the neighborhood and community domain in the 1990s (see Farrington and West, 1993; Wikstrom et al., 1995), but empirical research and prevention programs are much needed to investigate the influences of the Chinese community on delinquency.

There is some evidence that SES is directly associated with problem behaviors (e.g., Shek, 2005; Zhang & Messner, 1995), whereas other studies have found that, regardless of SES, children raised in conflictual families and maintaining close contact with deviant peers are more likely to engage in delinquency (e.g., Chen & Astor, 2010; Yang & Hoffmann, 1998). Nevertheless, Cheung and Cheung (2006) highlighted that adolescents who experience economic difficulties are more likely to lack family and school support, and to suffer educational disadvantages, which could increase their risk of becoming involved in delinquent activities. This implies that policymakers should work to improve the welfare of low-income families, with the particular goal of guaranteeing the well-being of children, so that they are better protected from the negative impacts of deviance and crime. Child welfare professionals similarly need to assist low-income families by drawing on available government resources and subsidies.

#### 4.4. Macrosystem

The ecological analysis has largely considered Chinese young people as a whole, while several studies have focused on different characteristics within Chinese communities which may facilitate the development of different intervention programs to alleviate juvenile delinquency. Despite the notable influence of Confucian culture, there are sociocultural differences between the three Chinese communities focused upon in this review: Mainland China is socialist and collectivist, Hong Kong is capitalist and more individualist, and Taiwan is capitalist but collectivist (Cheung et al., 2007; Lin, Dembo, Sellers, Cochran, & Mieczkowski, 2013; Ngai et al., 2007).

Socialist China accords greater value to support from extended families such as the work unit, neighborhood, and community (Cheung et al., 2007; Ngai et al., 2007), whereas the nuclear family is a typical feature of capitalist Hong Kong (Cheung et al., 2007). As it turns out, parental influence is more important in the capitalist-individualist context of Hong Kong because the essence of the nuclear family emphasizes private and familial interest (Ngai et al., 2007). In socialist-collectivist China, parents are less influential as employment policies and communal relationships diminish their impact on their children (Cheung et al., 2007). Hence, parental support may be a predominant factor to target in order to reduce adolescent delinquency in Hong Kong, whereas extended families, communities, and professional support outlets may be more effective focuses in the prevention of adolescent delinquency in Mainland cities (Cheung et al., 2007; Ngai et al., 2007). With regard to practical implications, intervention services of Hong Kong should emphasize the prevention of parent-child conflict and the strengthening of support from family members (Cheung et al., 2007). Policymakers in Mainland China need to develop mutual community support and professional

social services to supplement the diminished strength of parental roles (Cheung et al., 2007).

#### 5. Limitations and directions for future research

There are several limitations worth noting in the existing studies on Chinese juvenile delinquency. First, although some studies employed large samples, their participants were mainly sampled from school populations which inherently exclude adolescents who drop out, work, or attend reform schools, though these individuals they may be at higher risk of more serious delinquent behaviors. As the samples' representativeness cannot be guaranteed, the generalizability of their findings may be limited. Second, the majority of the empirical studies conducted analyses based exclusively on self-report surveys, in which participants' answers may not be honest, particularly those pertaining to delinquency, which may cause unmeasured biases. Finally, the cross-sectional design of the studies limits their investigation of causality of juvenile delinquent behavior. Longitudinal studies and high-quality experimental research are thus required to further clarify the causal effects and distinguish different types of offender (e.g., adolescent-limited versus life-course persistent offenders; Moffitt, 1993), in order to improve effective prevention and intervention methods.

With regard to the limitations of the current review, it is difficult to identify the relative strengths and weaknesses of the evidence across studies in a narrative review. Author-reported effect sizes and significance levels only convey the magnitude of the observed effects in a single study and are not directly comparable across multiple studies. The methodology of the reviewed studies may vary in terms of study design, analysis methods, and measures used to estimate effect sizes. In part for these reasons, we only reported whether the research findings are consistent across the literature, rather than assessing the effect size of the influential factors, in case there were mixed results. Subsequent reviews of Chinese juvenile delinquency should consider using meta-analysis to assess effect sizes across studies and synthesize research findings, especially when results are inconsistent.

As for the research implications, researchers have conducted massive empirical studies on the microsystem level, but there is a major dearth of studies investigating factors at the *meso*-, *exo*-, and macrosystem levels among Chinese juveniles (see Table 3). Therefore, more studies need to closely examine the interactions between the influence of self-control, parents, peers, teachers, and perceived strain, as well as macro-level changes in society, which may provide a more integrated explanation of Chinese adolescent delinquency. Second, further studies need to take into account both the positive and negative implications of parental influence, and conduct close examination of the association between parental influence, youths' attitudes to parenting, and delinquent involvement. Third, the proposition of the age-crime curve and the SES-delinquency relationship in the Chinese context require further clarification.

Finally, further longitudinal research needs to assess how the natures of communities have changed over time and how these potential changes may have affected juvenile delinquent behavior (Yang & Hoffmann, 1998). The work of Zhang and Messner (1995) and Zhang (2003) calls for further qualitative research to explore the labeling processes within Chinese communities. More importantly, further research is required specifically to assess differentials in the cultural influence and value priorities on juvenile delinquency (e.g., the effect of collectivistic culture on the development of self-control and parental influence in Mainland China, Hong Kong, Taiwan, and other Chinese contexts.). Further exploration is needed to debate whether societal-level cultural orientations (e.g., collectivist and individualist, socialist and capitalist) contribute to or reduce youth crime (Cheung & Cheung, 2010). The dramatic social reform in Mainland China has provided exciting opportunities to examine the effects of cultural variations (from collective-oriented to individualistic-oriented) on adolescents' delinquent behavior.

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