Intervening Paths From Strain to Delinquency Among High School and Vocational School Students in China

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Abstract

Chinese education system comprises high schools and vocational school, and their differences on delinquency have seldom been investigated. From the perspective of general strain theory, the present study examined the differences among high school and vocational school students for delinquency, strain, and other explanatory variables. General strain theory delineates the effect of strain on delinquency or deviance and presents the paths from strain to delinquency or deviance through social control and social learning variables. Using a sample of 1,852 tenth-grade students in Guangzhou City, the present study tests the intervening paths from strains to deviance among high school and vocational school students. Results indicated that vocational school students have higher likelihood to be strained and delinquent, and have lower social control and higher interactions with delinquent peers. School type is a significant predictor for strain, as well as social control and delinquent peers.

Keywords

Introduction

A primary line of research in criminology is to examine juvenile delinquency and test and develop theories of delinquency. A number of studies have applied the general

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strain theory (GST) to explain juvenile delinquency in China (Bao, Haas, Chen, & Pi, 2014; Cheung & Cheung, 2010; Gao, Wong, & Yu, 2014; Liu & Lin, 2007). A noteworthy recent development of the theoretical conception is the proposition of an integrated model of GST (Agnew, 2006), which assumes that strain might also lead to delinquent behavior through weakened social control and increased delinquent peer affiliation. Limited tests (Bao et al., 2014; Gao et al., 2014) explored this integrated model with data from China; however, the tests are inadequate in many aspects. Few have included all major variables in the integrated model. All studies have sampled regular high school students as the data source. These drawbacks prevent adequate knowledge from being developed about juvenile delinquent behavior with respect to the role of general strain.

It is a severe drawback to use only formal high school students as the only data source to examine juvenile delinquency in China. A primary feature of the Chinese context is the large-scale migrations from rural to urban that have occurred during recent decades. Juveniles from families with rural migrant backgrounds who reside in cities predominantly enter "vocational schools" in these cities, whereas school-age juveniles who are children of urban citizens (with urban resident registration) typically enter regular schools. Also, many urban juveniles with low socioeconomic family backgrounds and with a low level of academic achievements also go to vocational schools. Given well-established criminological knowledge on the relationship between socioeconomic status (SES) and delinquency, data solely from regular high school students will miss heavily the population that likely has a high level of possible delinquency, thus biasing the findings of the research.

The current study conducts a more adequate test of GST, paying particular attention to the special features of the Chinese context in the design, the test, and the explanation of the results.

The current study contributes to the existing literature primarily on two aspects. First, the current study includes for the first time vocational school students in China and makes a comparison between vocational schools and high schools to shed light on the reality of juvenile delinquency. Second, the current study adopts the integrated model of GST to examine how strains affect delinquency, including all the significant variables in the theoretical model, and examines the mediating effects of negative emotional states, social control, and delinquent peers among the paths from strain to delinquency in a Chinese context.

GST

Strain theory is distinguished from other criminological theories in the motivation for delinquency and deviance. GST proposed that various strains produce negative emotions, especially anger and depression, which further lead to delinquency and deviance (Agnew, 1992). "Strain is defined as events or conditions that are disliked by individuals" (Agnew, 2006, p. 4), and three types of strain are defined: failure to achieve positively valued goals, loss of positively valued stimuli, and presentation of negatively valued stimuli (Agnew, 1992). The first type of strain can be identified primarily as

disjunctions between aspirations and expectations/actual achievements, expectations and actual achievements, and just/fair outcomes and actual outcomes. The most common strain in this type might be the failure to achieve expected monetary success. The second type of strain is the loss of positively valued stimuli, no matter actual or anticipated, such as the death of a family member or personal bankruptcy. The third type of strain can be identified as a wide range of negative stimuli in life experience, such as criminal victimization, child abuse, and physical pain (Agnew, 1992). In addition, strain can be divided into objective strain and subjective strain. Objective strain means events or conditions that are disliked by most members of a given group and subjective strain means events or conditions that are disliked by the people who are experiencing them (Agnew, 2001). Relatively, subjective strain has a stronger effect on delinquency than objective strain (Froggio & Agnew, 2007). In the current article, objective strain and subjective strain are distinguished and the relationship between them is also explored in our analysis model.

A key proposition of GST is that negative emotions mediate the effect of strain on delinquency, and Agnew (1992) also presumed a pathway that links strain, negative emotions, and delinquency. Individuals may develop negative emotions such as anger, resentment, depression, and anxiety when encountering strain. One coping strategy regarding such negative emotions is delinquent behavior. This is the theoretical logic of GST and the effect of negative emotions upon delinquency has received much empirical support (Bao, Haas, & Pi, 2004). In addition, when encountered with strain, whether an individual uses a delinquent adaptation or not will also be conditioned by constraints like social control and dispositions like learning experiences, especially from delinquent peers. As a matter of fact, personal traits and environment will also influence the individual's coping choice, which means conditioning factors have a wide range, including an individual's problem-solving skills, low SES, and other variables cited in other theories (Agnew, 2013). Among them, social control and exposure to delinquent peers, which are developed respectively from social control theory and social learning theory, are considered the most important conditioning factors.

GST has been developed into one of the most important criminological theories since its introduction in 1992 by Agnew, and it has obtained much empirical support for its key propositions, mostly from researches conducted in the United States (Agnew, 1992, 2001, 2006; Agnew, Brezina, Wright, & Cullen, 2002; Agnew & White, 1992; Mazerolle & Maahs, 2000; Piquero & Sealock, 2004) but in other countries as well (Botchkovar & Broidy, 2013; Cheung & Cheung, 2008; Froggio & Agnew, 2007; Moon, Morash, McCluskey, & Hwang, 2009; Sigfusdottir, Kristjansson, & Agnew, 2012; Sigfusdottir & Silver, 2009).

Strain, Social control, Social Learning, and Delinquency

Variables specified in other theories such as social control theory and social learning theory have always been considered as influential factors, so they are always controlled for or included in the data analytical model when testing GST.

An integrated model was developed which assumed that strain would lead to delinquency through weakened social control and increased delinquent peer affiliation (Agnew, 2006). This model delineates the relationships among strain, social control, delinquent peers and delinquency or deviance. Strains from significant others might reduce one's attachment to them and increase the likelihood for connections with delinquent peers. Agnew (2006) argued that strain will also lead to delinquency via weakened social control and increased delinquent peer affiliation, separated from the mediating effect of negative emotions on strain leading to delinquency. Repeated strain may lead to attenuation of social bonds and reduce attachment to significant ones, adherence to conventional beliefs, and commitment to conventional institutions. In this case, social norms and values would have less socializing effects, and individuals in strains will tend to adopt delinquent ways to fulfil personal interests (Bao et al., 2014). This is the mechanism of the mediating effect of weakened social control on the connection of strain and delinquency.

Strains like child abuse may encourage the individual who were abused to justify later violent behavior (Gao et al., 2014). Strain may also reinforce learning and cognitive justification about delinquent behavior as well as lead individuals to join delinquent groups (Agnew, 2006; Bao et al., 2014). For example, individuals who experienced abuse in childhood might have learned violent behavior and developed cognitive justification about it at an early age. Delinquent peers are the key mediating factor between strain and delinquency that is borrowed from social learning theory.

The mediating effects of social control and delinquent peers have received extensive empirical support (Bao et al., 2014; Brezina, 1998; Eitle, Gunkel, & Gundy, 2004; Gao et al., 2014; Jang & Rhodes, 2012; Paternoster & Mazerolle, 1994). Despite the large number of researches testing GST, studies in a comprehensive or integrated model to test GST and its relationships with other criminological theories are still inadequate. We need more researches to explore an integrated model of GST to shed more light on the relations between strains and variables articulated in other criminological theories, especially social control and social learning theories, regarding their effects on delinquency.

Strain and Chinese High School and Vocational School Students

Several studies have investigated the integrated model combining strain, social control, and delinquent peers using data from China, and the results were mixed (Bao et al., 2014; Gao et al., 2014). More studies testing GST in China are needed. Agnew (2015) reviewed research in Asian contexts using GST and argued that GST can shed much light on the causes of crime in Asia. It is quite applicable to Asian societies. The current study aims to explore the integrated model of GST proposed by Agnew based on a large sample of Chinese respondents. Objective strain, subjective strain, negative emotions, and especially the mediating effects of social control and delinquent affiliation are discussed in our article. This stands to be an important academic contribution

to the application of GST in non-Western societies and will increase our knowledge about the integrated model of GST.

Previous studies in China mainly focus on the population of high school students, while the picture of the other half of the Chinese education system, vocational schools, is missing. In the Chinese education system, after 9 years of compulsory education, students can choose to go to high school to study 3 years of college, or go to a vocational school to spend 3 years learning technical skills for the labor market. Established in 1978, the vocational education system aimed to provide Chinese society with a trained labor force equipped with technical skills.

Economic reform from late 1970 created strong demand for technical workers and staff, and the government guaranteed that every graduate of vocational schools would obtain a job offer in factories, companies, or even governmental agencies. Vocational school students can also enjoy other incentives including tuition waivers and monthly stipends. Such good employment opportunities and incentives attracted numerous talents to apply for studying in vocational schools. However, things changed in the 1990s, when the government abolished job guarantees and other incentives. In short, studying in a vocational school became totally an individual and commercial choice, and graduates from these schools must seek their luck in the labor market.

At the same time, government funding for the vocational education system kept decreasing. According to the data from the Ministry of Education of the People's Republic of China, national funding for education was 4,255,700 million RMB in 2017, of which 431,800 million RMB (10.15%) was for high schools and 231,900 million RMB (5.5%) was for vocational schools. The educational quality in vocational schools was affected as considerable funding is necessary to purchase or construct machinery or instruments for teaching technical skills.

Such changes, together with little access to colleges and universities, made vocational schools no longer a first choice for an adolescent and his or her family when planning for a future career. On the contrary, more opportunities for college admission made high schools more attractive. At the end of 2015, the data from the Ministry of Education of China showed that the number of total and yearly admitted students in high schools kept increasing during past decades, with 23.744 million students in high schools and 16.567 million students in vocational schools. As a result, most vocational school students were from lower classes and had low self-efficacy and low self-esteem, and chose to receive technical training because of their poor performance in middle or high schools. The employment rate was low for graduates due to poor educational quality and a mismatch between curriculum and market needs. The social changes would easily drive individuals to feel unequal and angry, and the latter can lead to delinquent or deviant behavior.

The Present Study

The study utilized Chinese data to verify the validity of the integrated model of GST, which delineates that strain not only promotes negative affect but also lowers the levels of social control and increases the interactions with delinquent others, while the

latter ones increase the likelihood of delinquency. Strained students are more likely to have lower social control and more delinquent peers, as well as negative emotions such as anger and depression. Students with lower social control, more delinquent peers, and higher levels of negative emotions have a higher likelihood to engage in delinquent behavior.

Method

Participants

The data came from Guangzhou, the third largest city in China, in 2015. At the end of 2015, the resident population in Guangzhou was 13.50 million. According to the *Guangzhou Yearbook 2013* published by the local government, there were 220 schools (including high schools and vocational schools) in Guangzhou hosting Grade 10 to Grade 12 students. In 2015, the participants were selected among 10th-grade students in 52 schools from the 11 administrative districts of Guangzhou, using a cluster sampling method from the list provided by the Guangzhou Education Bureau. The class in Grade 10 was randomly selected in each school, and all the students in the class were invited to participate in the study. A total of 1,852 students were surveyed, and the response rate was 99.2%. Informed consent obtained, and the students filled in and answered the self-reported questionnaire through group interviews without teachers present.

In high schools, students study hard to prepare for the College Entrance Examination (Gao Kao), and those who gain high enough scores can be admitted by universities and colleges. On the contrary, students in vocational schools do not have the chance to take the College Entrance Examination as graduates of the vocational system enter the labor market to start their working careers.

Measurements

Delinquency was measured by counting the number of different offences the respondent reported in the previous 12 months, such as fare dodging; damaging public property on purpose; stealing something from a shop or department store; breaking into a building to steal something; stealing a bicycle; using a weapon; forcing or threatening force to get money or things from someone; carrying a weapon such as a stick, knife, gun, or chain; taking part in a group fight on the street or other public place; beating someone up or hurting someone with a stick or a knife so badly that the person was injured. They were also asked whether they would drink or fight with others when encountering negative life events. Cronbach's alpha of the delinquency was .954.

For the purpose of investigating the effects of strain on deviant activities, another dependent variable of deviance was also constructed. Deviance was measured by two items which were constructed with reference to the work of Jang and Johnson (2003). Respondents were asked how they acted when encountering the negative life events in the past 12 months as shown below in the measures of strain. The first item was, "In

the past 12 months, when you encounter the above negative events, your coping strategy is to drink or get high in other ways," and the second item was, "In the past 12 months, when you encounter the above negative events, your coping strategy is to hit or argue with other people." A 5-point scale was applied, ranging from 1 (*never*) to 5 (*very often*). Cronbach's alpha of the two items was .742.

Two types of strain are measured. The first type of strain, material strain, is the gap between aspiration and expectation. Aspiration and expectation were assessed by immediate material goals scale and blocked opportunity scale, which was constructed by L. Cao and Deng (1998). The measure of immediate material goals involves two items: (1) I have to possess the latest clothes and (2) I have to possess the latest mobile phone and tablet computer. Blocked opportunities consist of three items: (1) I am satisfied with my opportunities to reach my goals; (2) I am satisfied with my present financial situation; and (3) I am satisfied when comparing myself with other Chinese families. A 6-point scale was applied into all of the above items varying from 1 = *strongly disagree* to 6 = s*trongly agree*. Cronbach's alpha of these items was .686.

The second type of strain, student anger, is the frequency with which the respondents see or have contact with angry students in schools, which may reveal the environmental level of strain for respondents by counting the quantity of angry students around. The measure of angry students involves two items: (1) I have met many angry students in my school and (2) many students in my school are easy to be angry. A 6-point scale was applied to all of the above items varying from 1 = *none* to 6 = *all the time*. Cronbach's alpha of the two items was .595.

State of anger was measured by a 10-item state of anger scale (Cronbach's α of these items was .956.), which involves items such as "I felt angry," "I felt irritated," "I felt like banging on the table," "I felt like yelling at somebody," and "I felt like hitting someone" (Spielberger, Jacobs, Russell, & Crane, 1983).

State of depression (Cronbach's α of these items was .808.) was measured by the 10-item state of depression scale (Spielberger et al., 1983), which involves such items as "I felt miserable," "I felt gloomy," "I felt downhearted," and "I felt like swearing."

Social control was measured by an 18-item instrument consisting of five dimensions: commitment to school, parental attachment, peer attachment, involvement in conventional activities, and conventional belief (Chapple, McQuillan, & Berdahl, 2005). Higher scores indicate higher social control. Cronbach's alpha of these items was .800.

The variable of delinquent peers was measured by asking respondents how many of their friends had such activities as theft, force, or threat or force to get money from someone; beating someone; smoking or drinking wine; group fighting on the street or other public places; and using drugs. A 5-point scale was applied ranging from 1 = *none of my friends* to 5 = *all of my friends*. Cronbach's alpha of these items was .917. School type was defined as vocational school (coded as 1) and high school (coded as 0).

Control variables comprised individual demographics of gender, age, and SES (higher scores indicate higher status). SES was measured by two items: family financial status (ranging from 1 = *very bad* to 5 = *very good*) and the amount of pocket money (ranging from 1 = *very much less than others* to 5 = *much more than others*). Cronbach's alpha of the two items was .705. The values of dependent and independent variables are presented in Table 1 below.

Table 1. Descriptives of Dependent and Independent Variables ($N = 1,852$).

Variables	Minimum	Maximum	M	SD
Gender	1	2	1.52	0.50
Age	13	16	16.12	0.69
Socioeconomic status	2	10	5.56	1.49
Delinquency	1	5	1.42	0.79
Deviance	1	5	1.14	0.59
Material strain	−2.96	5.51	−0.11	1.26
Angry students	−1.88	5	−0.165	1.62
State of anger	1	5	1.49	0.81
State of depression	1	5	2.02	0.57
Social control	1	5	3.70	0.47
Delinquent peers	1	5	1.31	0.61

Analyses

First, comparisons were made among high school and vocational school students for delinquent behavior, strain, state of anger, state of depression, social control and delinquent peers and other variables to investigate the differences. Second, bivariate correlations among school type, delinquency, deviance, material strain, angry students, state of anger, state of depression, social control, and delinquent peers were examined. Third, path analyses were conducted to verify the effects of strain on negative emotions and other variables, then to delinquent behavior, while school type, gender, age, and SES were controlled.

Results

Descriptive Statistics

A total of 1,852 respondents completed the survey, for which the mean age was 16.12 ($SD = 0.69$), with 895 male (48.3%) and 957 female (51.7%) students nested in 52 schools. Table 2 presents the means and standard deviations of the variables used.

Differences Between Vocational and High School Students

Vocational school students had higher levels of delinquency ($t = −6.386, p < .001$), material strain ($t = −9.252, p < .001$), angry students ($t = −7.42, p < .001$), state of depression ($t = −4.204, p < .001$), more delinquent peers ($t = 7.520, p < .001$) and lower social control ($t = −9.619, p < .001$). High school students had less delinquency and less state of depression. High school students also had a higher level of social control and less contact with delinquent others.

Table 2. Comparison Between Vocational and High Schools.

Variables	Vocational school		High school		
	M	*SD*	*M*	*SD*	*t*
Age	16.33	0.78	16.02	0.608	−9.546***
Socioeconomic status	5.56	1.41	5.56	1.53	−.030
Delinquency	1.29	0.77	1.08	0.43	−6.384***
Deviance	0.79	0.03	0.46	0.01	−5.87***
Material strain	0.29	1.15	−0.29	1.29	−9.252***
Angry students	0.22	1.7	−0.36	1.53	−7.42***
State of anger	1.52	0.77	1.48	0.83	−1.075
State of depression	2.10	0.51	1.98	0.59	−4.204***
Social control	3.59	0.43	3.76	0.49	7.520***
Delinquent peers	1.50	0.80	1.21	0.47	−9.619***

***$p < .001$.

Table 3. Correlations Among Variables.

	Disjunction	Angry students	State of anger	State of depression	Social control	Delinquent peers	Delinquency	Deviance
School type	.213***	.170***	.025	.097***	−.172***	.221***	.149***	.137***
Material strain		.229***	.222***	.354***	−.303***	.243***	.270***	.170***
Angry students			.309***	.275***	−.218***	.405***	.409***	.311***
State of anger				.381***	−.280***	.281***	.356***	.263***
State of depression					−.356***	.193***	.277***	.153***
Social control						−.274***	−.315***	−.215***
Delinquent peers							.738***	.699***
Delinquency								.812***

***$p < .001$.

Correlations Among Variables

The results of bivariate correlations among school type, delinquency, deviance, material strain, angry students, state of anger, state of depression, social control, and delinquent peers are presented in Table 3. Significant correlations were found among school type and delinquency ($r = .149$, $p < .001$), deviance ($r = .137$, $p < .001$), material strain ($r = .213$, $p < .001$), angry students ($r = .170$, $p < .001$), state of depression ($r = .097$, $p < .001$), social control ($r = −.172$, $p < .001$), and delinquent peers ($r = .221$, $p < .001$). There were significant correlations among material strain and state of anger ($r = .222$, $p < .001$), state depression ($r = .354, p < .001$), social control ($r = −.303, p < .001$), and delinquent peers ($r = .243, p < .001$). There were also significant correlations among angry students and state of anger ($r = .309, p < .001$), state of depression ($r = .275, p < .001$), social control ($r = −.218, p < .001$), and delinquent peers ($r = .405, p < .001$). Significant correlations were found among social control
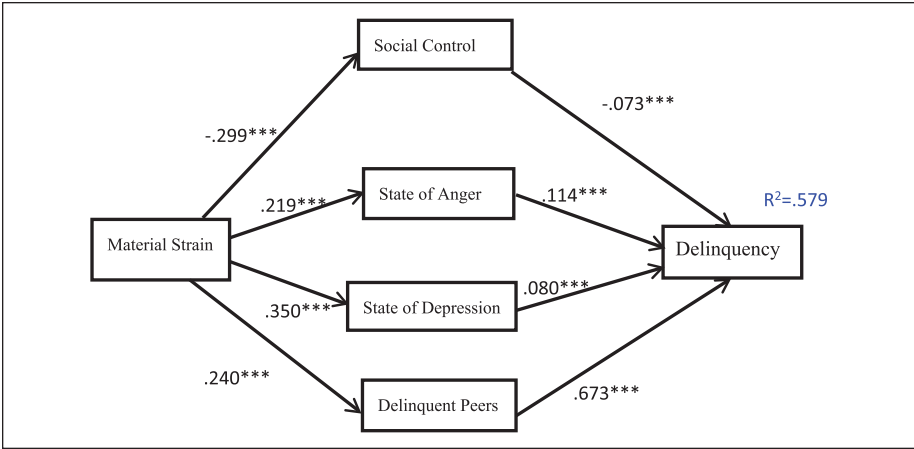
Figure 1. Intervening paths from strain to delinquency.
Note. Standardized path coefficients were presented. School type, gender, age, and social-economic status were controlled.

$(r = -.315, p < .001)$, state of anger $(r = .356, p < .001)$, state of depression $(r = .277, p < .001)$, delinquent peers $(r = .738, p < .001)$, and delinquency.

The Path Models for the Effects of Strain on Delinquency and Deviance

The results shown in Figure 1 reveal that material strain has significant positive effects on state of anger, state of depression, and delinquent peers, and negative effects on social control. The results indicated that higher levels of material strain will increase the levels of negative affect and interactions with delinquent others, and lower the levels of social control. On the contrary, social control, delinquent peers, and state of depression also have significant effects on delinquency, which revealed that lower social control, more interaction with delinquent peers, and higher state of depression would increase the likelihood of delinquency. The first path model can explain the 57.8% variance of delinquency. The model fit indices of the Path Model 1 are acceptable, where $\chi^2(df = 1) = 8.110, p = .004$, comparative fit index (CFI) = .998, Tucker–Lewis index (TLI) = .899, root mean square error approximation (RMSEA) = .062, Akaike information criterion (AIC) = 136.110.

The results of path analyses from material strain to deviance are presented in Figure 2. Similar to the results of the first path model, material strain has significant positive effects on state of anger, state of depression, and delinquent peers, and has negative effects on social control. State of anger, state of depression, and delinquent peers have significant effects on deviance, while social control has significant negative effects on deviance. The model fit indices of the Path Model 2 are acceptable, where $\chi^2(df = 1) = 13.269, p = .000$, CFI = .995, TLI = .784, RMSEA = .081, AIC = 141.269.
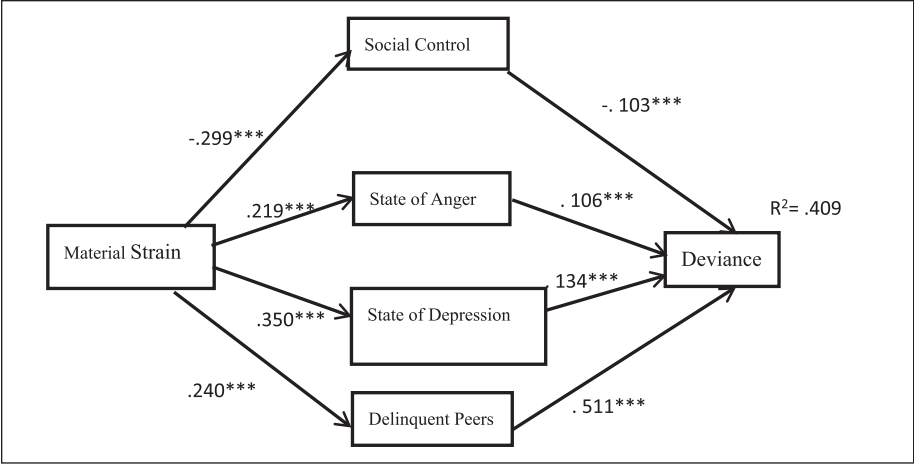
Figure 2. Intervening paths from strain to deviance.
Note. Standardized path coefficients were presented. School type, gender, age, and social-economic status were controlled.
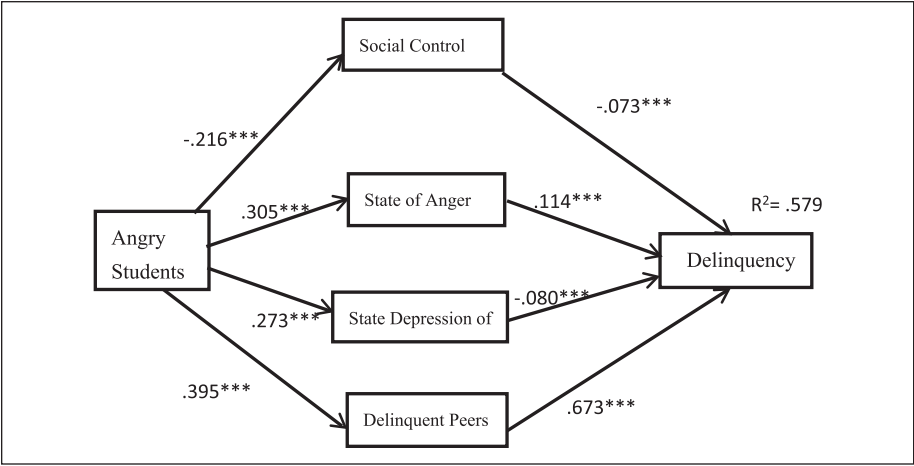

Figure 3. Intervening paths from angry students to delinquency.
Note. Standardized path coefficients were presented. School type, gender, age, and social-economic status were controlled.

The results of effects of the second type of strain, angry students, are presented in Figures 3 and 4. In the third path model, angry students have significant effects on state of anger, state of depression, delinquent peers, and social control. State of anger, state of depression, and delinquent peers have significant positive effect on deviance, and social control has a negative effect on delinquency. The model fit indices of the
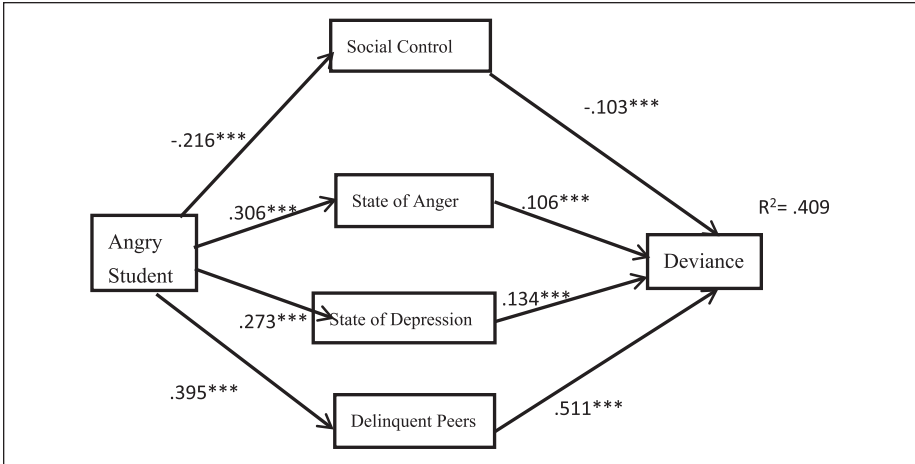
Figure 4. Intervening paths from angry students to deviance.
Note. Standardized path coefficients were presented. School type, gender, age, and social-economic status were controlled.

Path Model 3 are acceptable, where $\chi^2(df = 1) = 23.961$, $p = .000$, CFI = .993, TLI = .841, RMSEA = .079, AIC = 150.987.

Similar to the results in Figure 3, angry students have significant effects on state of anger, state of depression, delinquent peers and social control, and state of depression, delinquent peers, and social control have significant effects on deviance. The model fit indices of the Path Model 4 are acceptable, where $\chi^2(df = 1) = 24.045$, $p = .000$, CFI = .988, TLI = .726, RMSEA = .093, AIC = 160.045.

Discussion

Based on the revised integrated model of GST by Agnew (2006), the present study examined the effects of two types of strains on delinquency and deviance, and the mediating roles of negative affect, social control, and delinquent peers based on the data collected from vocational school and high school students in South China.

Strains remain significant effects on mediating variables, and mediating variables such as state of anger and of depression have significant effects on delinquency and deviance. The present study revealed that strain significantly increases the likelihood of delinquency and deviance, and also the levels of state of anger and state of depression. The path analyses indicated that the effects of strain on delinquency and deviance were mediated by negative emotions such as anger and depression. The results provide support to the mediating effects of negative emotions which is consistent with the previous research (Agnew, 1999; Bao et al., 2004; Mazerolle, Burton, Cullen, Evans, & Payne, 2000; Moon et al., 2009).

The results revealed that strain directly increased the affiliation with delinquent peers and decreased the level of social control, and the latter led to a substantial increase of delinquency. The results are consistent with previous studies (Bao et al., 2014; Brezina, 1998; Gao et al., 2014; Jang & Rhodes, 2012) and provide empirical support to the integrated GST model which assumes that strain will also lead to weakened social control and increased delinquent peer affiliation (Agnew, 2006). Strains may reduce the attachment to school and family and lower the commitment to conventional values, as such relationships with conventional others and institutions that are disrupted (Agnew, 2006; Gao et al., 2014). Delinquent peers also had greater effects on delinquency and deviance than other factors, especially social control. This result is similar to the study of Bao et al. (2014), who had predicted that delinquent peers would play a more and more important role as Chinese society transforms toward more Western-style arrangements. It is possible that rapid modernization and individualization reduce the influence of authority figures but amplify peers' impacts on social life. This possibility is worth further exploration in more future studies.

The significant differences between vocational school and high school upon the level of strain and delinquency reflect an influential institutional arrangement in Chinese society. According to Chinese education regulations, under which, after 9 years of compulsory education, students must take an entrance examination for high schools (Zhong Kao), and only those who obtained the required scores are allocated to high schools (higher scores for better high schools), certain behavioral divides between groups result. In 2017, there were 13.975 million graduates from middle school, among which 8.001 (57.25%) million were admitted into high school, and 5.824 million (41.67%) were admitted into vocational schools. The students in vocational school are those who had poor performance in the previous study so they did not get high enough scores for admission to any high schools. As a result, graduates from vocational schools enter the labor market for manual work but have fewer opportunities for well-paid jobs or office work. Blocked opportunity for college education is equal to blocked opportunity for upward mobility to higher classes in Chinese society.

The result that vocational school students have higher levels of desire for material goals is consistent with the literature that individuals with low SES tend to have higher levels of monetary desire in a market-orientated economy (Agnew, 1999). In the open and reform era, money has been centrally placed in Chinese society. Pictures and videos of fashionable cars, clothes, and electronic equipment appear in street shop windows, newspapers, magazines and TV channels every day, stimulating people to purchase more, and the stories and life-styles of the rich are reported frequently in the media, thus motivating most Chinese people to be eager to earn good money. It is not surprising that economically deprived individuals would have high material aspirations; seeking a better future is a basic characteristic of human nature.

When adolescents from lower classes have a higher desire to acquire fashionable clothes, mobile phones, and other expensive items, their SES presents difficulties for achieving these material goals. First, the poor financial conditions of their families cannot afford them. Second, they have a lesser chance to obtain better education, and studying at a vocational school is not enough to equip them for a brighter future by

entering the middle class. By way of their training in technical skills, they are aware that it is difficult for them to obtain higher positions in the labor market with higher salaries. They thus have a lesser chance for upward mobility and being successful in achieving material goals. As a contrary, most vocational students in countries such as Germany do not enter colleges, but their salaries after graduation do provide them a more stable life and the ability to find their path to get closer to the middle class. Third, such difficulties at present and in the future of China will fuel vocationally trained Chinese students with feelings of inequity and dissatisfaction.

The comparison between vocational and middle school students helped us identify a group of students with a high level of strain. The strain is produced from the gap between a desire for money or material consumption and their ability to achieve it, especially when educational opportunities in China are not equally distributed. In major cities such as Guangzhou, Beijing, and Shanghai, public middle schools only or mainly accept students with local household registration (Hu Kou). The policy regarding the entrance examination for college (Gao Kao) mandates that high school students must attend this examination in the place of their resident registration (J. Cao, 2013; Rong, 2012). Most adolescents without local household registration have to go back to their hometowns to be accepted by the middle schools there. Even for those students with local household registration, those who do not perform well in the entrance examination for high schools go to vocational schools because they have little chance to pass the College Entrance Exam (Gao Kao). Vocational school graduates join the job market after 3-year study. College graduates are facing much pressure in finding jobs, but a college degree is still a requirement for most office work and well-paid jobs. These factors lead to a higher level of strain in vocational school students.

Overall, the present study not only provides empirical support to the integrated model of GST but also helps us to better understand the difference between vocational school and high school in Chinese society, which is still seldom studied. For those who are concerned with juveniles, reducing their delinquent behavior by trying to make them avoid strain experiences is not enough. Some attention also should be paid to the influence of peer groups, as well as the release of negative emotions. Distinguishing between vocational school and high school is due to social institutional reasons and education policy. The implication of the current study is that government policy should pay more attention to the outcomes of vocational education.

Despite its notable results, the present study still has some limitations. First, the present study utilized cross-sectional data; thus, the true causal relationships might be concealed. Longitudinal data should be used if possible in the future to clarify the true relationships between the variables. Second, the present study mainly measured strain as a disjunction between aspiration and realistic expectation; more measures for different types of strain should be added in future studies. This study did not measure perceived inequality; doing this could provide more information about the factors that influence material desire. Another limitation is that only state of anger and state of depression were measured; a future study could include trait of anger or of depression. Likewise, more variables should be included in the analysis model in future studies, such as more demographic variables and other influential factors indicated in GST.

Chinese society is still in need of more studies, not only due to its unique tradition and social conditions but also because of the reality that China has been experiencing rapid transformation in the past several decades. Testing a Western theory is not enough; revealing something new from the unique social conditions that arise within these processes of change can be more valuable in creating knowledge.

Authors' Note

Jinwu Zhang is working in University of Macau currently, and contributed equally to the manuscript.

Declaration of Conflicting Interests

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