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Examining the Relationship Between Parenting, Risk-Taking, and Delinquency in Japan: Context and Empirical Applicability

Laura Bui

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Abstract In criminology, the relationship between risk-taking and delinquency is well established. Although research on the relationship between risk-taking and delinquency is extensive, it is primarily limited to Western contexts. Particularly for Japan, little is known about the relationship between risk-taking and delinquency, as existing empirical studies in English are scarce. The present study examines the relationship between risk-taking and delinquency in the Japanese context. In briefly reviewing the literature on risk-taking in Japan, parenting was an important influence on levels of youths' risk-taking and delinquency. The findings primarily support the mediating role of high risk-taking between parenting and delinquency. Although high risk-taking explained why low maternal attachment and monitoring was related to delinquency, it was unable to explain the relationship completely.

Keywords Japan · Delinquency · Parenting · Risk-taking · Comparative criminology

Introduction

In criminology, the relationship between risk-taking and delinquency is well established (Leas and Mellor 2000). Studies that examined this relationship have shown that compared with nonoffenders, offenders take notably more risks (Farrington 2005; Hawkins et al. 1998; Winfree et al. 2006). As one of six components in Gottfredson and Hirschi's (1990) construct of low self-control, risk-taking is independently a significant influence on crime, even exceeding the influences of global self-control measures (Hay et al. 2010).

Although research on the relationship between risk-taking and delinquency is extensive, it is primarily limited to Western contexts. It is unclear to what extent research investigating the relationship between risk-taking and delinquency is applicable in non-Western settings. Particularly for Japan, little is known about the relationship between risk-taking and delinquency, as existing empirical studies in English are scarce (for an exception, see Kobayashi et al. 2008). Generally, the inclusion of few non-Western societies is a persistent issue in comparative criminological studies (Liu 2007). Thus, Liu (2007) recommended the use of case

L. Bui (✉)
Institute of Criminology, University of Cambridge, Sidgwick Avenue, CB3 9DA Cambridge, UK
e-mail: lb444@cam.ac.uk

studies of criminological phenomena in non-Western societies. Advantages to the case study approach are the contribution of detailed historical and sociocultural descriptions of the context of interest toward the understanding of its criminological phenomena. The present study examines the relationship between risk-taking and delinquency in the Japanese context. To accomplish this, the extant literature on Japanese society and risk-taking will be briefly reviewed. The purpose of this review is to produce a framework that (1) is specifically relevant to the Japanese context, (2) offers an explanation to the development of risk-taking specific to the Japanese context, and (3) provides a basis to empirically investigate the relationship between risk-taking and delinquency.

Risk-taking in the Japanese context

According to the extant literature, Japanese society emphasizes low risk-taking. Options for safety and security, while the avoidance of uncertainty whenever possible are preferred (Gudykunst and Nishida 1994; Hofstede 1980; Kobayashi et al. 2008). Dussich et al. (2001) found that four concepts generally define Japanese culture: (1) *Wa* (referring to reciprocal and harmonious relationships between people who share the same values), (2) *Amae* (dependence), (3) *Enryo* (pressured response to conform), and (4) *Haji* (shame). Aptly learning these behaviors and values prepares Japanese children for success in navigating through a society that promotes group dependence: a structure that encourages behavior to be closely monitored and if necessary, sanctioned by an individual's web of social networks and small groups (Miller and Kanazawa 2000, p. 93).

This highly group-dependent system is able to exist because relationships in Japan are long-term and group affiliations are difficult to change. However, the individual benefits from this type of societal structure because each of his affiliated groups will fulfill their obligations to him, and there is little risk of being cheated (Hechter and Kanazawa 1993; Yamagishi and Yamagishi 1994).

Deviance, eccentricity, or being different are considered undesirable, because they are incompatible with being part of the collective and would likely result in exclusion. Belonging to a society that emphasizes group membership and participation as an inherent part of social functioning, exclusion is an unwanted consequence (Thorton and Endo 1992, p. 21). A former official of the Ministry of International Trade and Industry, Sakaiya (1993, p. 243), in his book, *What is Japan? Contradictions and Transformations*, believed that the fear of being disliked by one's peer group was worse than the fear of death. Individuality, however, is expressed in socially approved ways, such as through subtle and trivial acts (Komiya 1999). Thus, low risk-taking is encouraged and rewarded in Japanese society.

The initial socialization for low risk-taking begins early in life. Parents, particularly the mothers, monitor their children's behaviors and instill into their children that appropriate behaviors embody conformity to the norm, conflict and dissent avoidance, and dependency on others (DeVos 1973; Kobayashi et al. 2008; Reischauer 1988, p. 144). Although both parents contribute to their children's socialization, fathers generally do so indirectly because they are expected to be the primary income earners for their families, whereas mothers are expected to stay at home and be the primary domestic caretakers (Mathews 2004; White 2002, p. 45). According to Miller and Kanazawa (2000), p. 59), the low rates of Japanese delinquency are credited to the high level of parental supervision as the result of the high percentage of stay-at-home mothers.

As mothers are encouraged to stay at home, the children spend a substantial amount of their time with her. This amount of time spent together increases the mother–child bond, which fosters maternal dependency and to some extent, a feeling of indebtedness and gratitude that serves as

the future motivation to study, to work hard, and to become an upstanding citizen of Japanese society (Katsuura-Cook 1991; Kawanishi 2004; Keiko and Nagahisa 1998; Sasagawa 2004; White 1994, p. 29). The parent–child bond is the core of the Japanese family and not the husband–wife relationship (White 2002, p. 88). The socialization process developed in early childhood continues to influence adult behavior because social and cultural values are internalized and the thorough training in group dynamics (Miller and Kanazawa 2000, p. 41).

Links Between the Japanese Context and the Criminological Literature

In examining the association of social relationships with risk-taking, the parent–child relationship is one of the most prominently studied (Boyer 2006). Criminological research has supported the substantial relationship between poor parenting and high risk-taking (Hay 2001; Perrone et al. 2004; Unnever et al. 2006). Although many criminological studies that investigate parenting and risk-taking tend to use a measure of self-control, recent studies demonstrate the empirical significance of risk-taking itself in tests of self-control (see Hay et al. 2010, p. 95). In these studies, risk-taking is the most significantly prominent component, and thus, findings that are applicable to the concept of low self-control seem to also be applicable to high risk-taking.

As parental harsh discipline is related to and predictive of delinquency (Hoeve et al. 2009), it has produced conflicting findings for different ethnic groups. For instance, Deater-Deckard et al. (1996) concluded that the relationship between parental harsh discipline and aggression was culturally specific. In a sample of European–American and African–American children, the researchers found that harsh discipline was not associated with higher externalizing scores and aggression for African–American children; however, the opposite was found for European–American children. For the present study, this particular finding is relevant because it is unclear whether parental harsh discipline is positively or negatively related to high risk-taking and delinquency in the Japanese context.

As Japanese culture has roots in Confucianism, a philosophy emphasizing filial piety and familism that is pervasive in East Asian cultures, parental harsh discipline may not have a negative effect on youth (Liu 2009; Shaw 2010; Yun 2008). What is considered as harsh discipline (e.g., hitting) is viewed as an action based on cultural beliefs (e.g., unquestioned obedience and respect for parents and elders) and is acceptable because of the cultural norms in East Asian cultures (Nguyen 1992). Hence, parental harsh discipline would not be related to delinquency.

The literature on Japanese child rearing, however, reveals that early influential writers on parenting advised parents to avoid using harsh or abusive language and abstain from corporal punishment because they were not conducive to a strong personal connection between parent and child (Holloway 2010, p. 122; Kojima 1986). An influential and traditional Japanese saying regards children as treasures or gifts from heaven and from the past. Children were considered fragile and belonged more to the spirit than to the human world. Thus, harsh discipline was discouraged as children were different in morality and mindset and needed to be gradually and gently domesticated (MacFarlane 2008, p. 92).

Key Questions

Based on the previous review of the literature on Japanese society and risk-taking, the key questions for this study are as follows:

1. Does high risk-taking mediate the relationship between poor parenting and delinquency in the Japanese context?

2. Which parenting (maternal or paternal) is stronger in its relationship to risk-taking and delinquency?
3. What is the role of parental harsh discipline in its relationship to risk-taking and delinquency?
4. How are these relationships different or similar between males and females?

Methodology

Data is from 681 high school students located in the city of Higashiōsaka, in the Osaka prefecture area. Those who had only one parent (those who answered that they did not have a mother/father as opposed to not living with their mother/father) were excluded from the analyses. This was to ensure comparability between maternal and paternal parenting within respondents' households. The current sample comprises 515 males and 166 females. The small fraction of females was because data collection was from predominantly male schools.

Through an application process to the educational committee and through a series of meetings with high school principals in nearby prefectures, access was finally obtained for two private high schools in the Osaka prefecture in the spring of 2011. Although the students were derived from two high schools, the classes in each school were randomly chosen to participate in the survey. Thus, the sample should be representative of these schools. The survey is composed of questions on living arrangements, attitudes about shame and embarrassment, youths' relationships with their parents, schools, communities, and delinquent involvement.

The survey was originally designed in English, and a back translation (Matsumoto and Juang 2004) was conducted where the survey was translated from English to Japanese, and then translated again into English without reference to the original text. Additionally, some questions were altered at the schools' request or because they were deemed to have little relevance in a Japanese context.

Measures

Outcome Variable

Delinquency and deviance The 11-item measure was based on Wolfgang et al.'s (1985) seriousness scores and Le Blanc and Fréchette (1989) average seriousness scores.[1] Deviance was included because within the Japanese context, it was believed that delinquency would yield a very low prevalence. Respondents self-reported how many times (none, one to two times, and three or more times; coded as 0, 1, and 2) in the past year had they committed the following acts: (1) public mischief (smoking cigarettes, pachinko (gambling slots), running away from home, and staying overnight without parents' permission); (2) vandalism (drawing graffiti on buildings or other property without the owner's permission); (3) burglary (breaking into a house, store, school or other building without the owner's permission); (4) motor vehicle theft (taking a bicycle/ scooter/ motorbike for a ride without the owner's permission); [2] (5) shoplifting, (6) common theft (taking parents' money without permission); and (7) personal

[1] The seriousness scale is rated as follows: homicide, 31.1; sex offenses, 14.3; personal attack, 13.21; aggravated theft, 11.54; personal larceny, 7.1; motor vehicle theft, 6.7; burglary, 6.43; fraud, 6; common theft, 5.07; shoplifting, 2.2; vandalism, 1.8; petty larceny, 1; and public mischief, 0.7

[2] This item was changed from motor theft to bicycle/scooter/motorbike because in Japan, the majority of people do not own cars.

attack (hurting someone in a fight and picking a fight with someone). This method consists of multiplying these scores by the response of each delinquency item, and each new score was added together for an "offending gravity score."

The purpose of using these scores was to ensure that more serious offenses would be given more weight than less serious ones while also accounting for frequency (Kazemian et al. 2009). The scores were subsequently logged (base 10) because (1) this makes the distribution less skewed to satisfy the basic assumptions of ordinary least squares (OLS) regression and (2) it compresses the higher scores, allowing them to be retained in the analyses as opposed to deletion or exclusion (see Morselli and Tremblay 2004). For the remainder of the paper though, the measure delinquency and deviance, will be referred to as delinquency.

Mediation Variable

High risk-taking The measure comprised five items (α=.82) that asked respondents, on average, how frequently they participated in the following: (1) shocking people just for the fun of it, (2) doing what feels good regardless of the consequences, (3) doing something dangerous because of a dare, (4) doing risky/crazy things even if they are a little frightening or dangerous, and (5) doing risky/crazy things just to see the effect on others. The scale ranged from never (score=0) to once a week (6).

Explanatory Variables

Parenting Measures of parenting were separated by maternal and paternal parenting and include the following:

(a) Low attachment/monitoring: The separate low attachment and monitoring measures were combined together because of multicollinearity. This four-item measure asked respondents whether (1) their mother and father knew where they were, (2) who they were with when they were not at home, (3) whether their mother or father understood their thoughts and feelings, and (4) if it was easy to discuss problems with their mother and father. Each item's scale ranged from often (score=1) to never (4) (paternal measure α=.79; maternal measure α=.82).
(b) Harsh discipline: Respondents were asked how often did their mother and father do the following if they misbehaved: hit or slap, yell or scream, and lock them out of the house. The scale for this three-item measure ranged from never (score=1) to often (4) (paternal measure α=.69; maternal measure α=.63).

Control variables Low school bonding, low shame, and troubled peers were included in the analyses to determine the extent the variables of interest were significantly related to delinquency. It could be that other factors provided better explanations for delinquency in the Japanese context. The reason was prior analyses (see Bui, 2012) revealed that these factors were significantly related to Japanese delinquency. Low school bonding consisted of 4 items (α=.59): (1) getting good grades is important to me, (2) I care what my teacher thinks of me, (3) I always finish my homework on time, and (4) I like my school. The scale for these items ranged from strongly agree (score=1) to strongly disagree (4).

For the low shame measure (α=.88), the items consisted of the statements "People whose opinions I value would lose respect for me if I …" and "I would be ashamed if I was caught and punished if I …" followed by two acts: stole something from the

Table 1 Means and standard deviations of main study variables (N=681)

	Range	Males (N=515)		Females (N=166)	
		M	SD	M	SD
Age	15–18	16.1	0.9	16.1	1.0
Low maternal attachment/monitoring	4–16	8.7	2.9	7.5	2.8
Maternal discipline	3–12	5.9	2.0	5.9	2.1
Low paternal attachment/monitoring	4–16	10.1	3.0	10.0	2.7
Paternal discipline	3–12	6.1	2.1	5.3	2.0
Risk-taking	0–25	10.7	6.2	8.4	5.8
Delinquency					
Before logging	0–94.10	21.73	25.67	11.25	21.47
After logging	0–1.98	0.90	0.70	0.54	0.66

store and illegally gambled. The scale for these items was similar to that of low school bond.

Lastly, the measure for troubled peers was measured by the question "How many of your closest friends were ever picked up by the police?" and the scale ranged from none (score=0) to three or more (3). For the mediation and explanatory variables, measures with more than one item were summed and the averages were used as the final score. Table 1 presents the details of the study's measures.

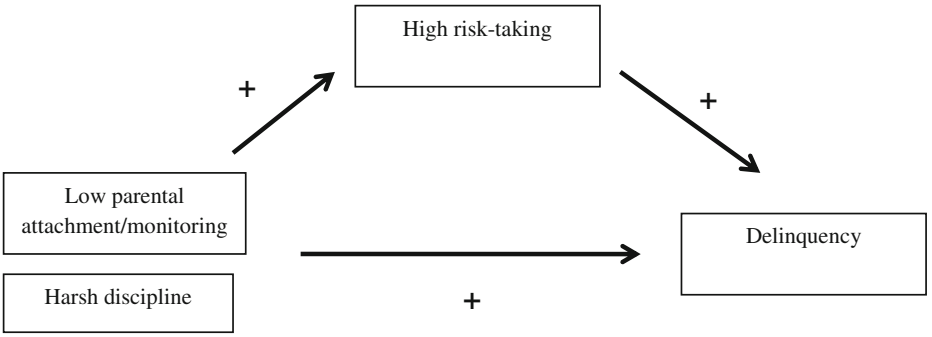
Plan of Analysis

The first set of analyses used OLS regression to investigate whether parental attachment/monitoring and harsh discipline were significantly related to risk-taking. The second set of regression analyses examined delinquency as the outcome variable and included risk-taking in the model to gauge whether risk-taking had a stronger relationship with delinquency than parenting.

To examine between-group differences of maternal and paternal parenting on risk-taking and delinquency, the z-test proposed by Paternoster et al. (1998)[3] was used. Lastly, the third set of the analyses determined whether the mediation (i.e., the indirect) effect between parenting, risk-taking, and delinquency was significant. These results were presented as four separate mediation models (maternal and paternal low attachment/monitoring, high risk-taking, and delinquency; maternal and paternal harsh discipline, high risk-taking, and delinquency), separately for males and females (see Fig. 1).

A nonparametric resampling procedure called bootstrapping was employed to determine the significance of indirect effects through confidence intervals. Using Hayes' medcurve SPSS macros (Hayes and Preacher 2010), this technique estimates the properties of the sampling distribution from the sample data by taking smaller samples from the data called "bootstrap samples." The averages of these bootstrap samples are calculated and by taking many

[3] Based on Clogg et al. (1995), this formula is suggested for use in-between-group comparisons of regression coefficients. The equation is believed to be better in detecting actual significance between groups because it does not have a negative biased estimate (i.e., it produces error estimates that are too small which inflate the z-score, encouraging types 1 and 3 errors) of the true standard deviation of the sampling distribution of coefficient differences (Paternoster, Brame, Mazerolle, and Piquero 1998). The suggested formula is $Z=(b_1-b_2)/\sqrt{(SEb_1^2+SEb_2^2)}$.



+ indicates that these are proposed positive relationships
Harsh discipline and parental attachment/monitoring are two separate models

Fig. 1 Proposed mediation model of explanatory and outcome variables

bootstrap samples, an estimation of the sampling distribution is produced (Field 2009, p. 163). This approximation of the sampling distribution allows for the construction of confidence intervals for the indirect effect (Preacher and Hayes 2008). This method is based on 5,000 bootstrapping resamples with a 95 % confidence interval (Fig. 2).

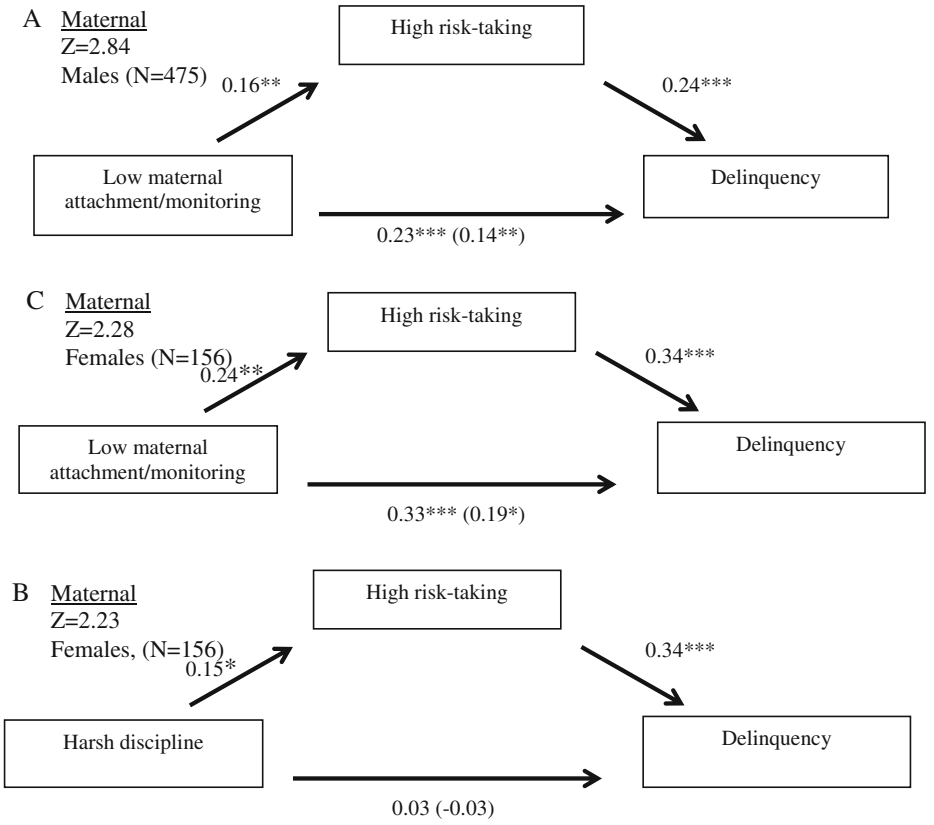
Interpretation focused on whether zero (0) was contained within the confidence interval. If so, the indirect effect was nonsignificant. This method was preferred over other tests for significant indirect effects such as the Sobel test because it was less conservative, did not require normality assumptions to be met, and could be used with smaller samples ($N<25$; Preacher and Hayes 2008). Additionally, its strengths over other methods were (1) unlike Baron and Kenny's (1986) method, it decreased the chances of type 1 error, (2) bootstrapping has larger power because it normally distributes the parameters and increased power to detect smaller effects, and (3) it could be used with a direct effect of 0 (Preacher and Hayes 2008). Several criminological studies have tested mediation with bootstrapping (see Jones et al. 2011; Le et al. 2009; Schroeder et al. 2011).

Results

Parenting and Risk-taking

In Table 2, Model 1, where only parenting measures were included, both low maternal and paternal attachment/monitoring were significantly related to male high risk-taking ($p<.001$). The relationship to high risk-taking is slightly stronger for low maternal attachment/monitoring compared with that of low paternal attachment/monitoring ($\beta=0.21$ vs. $\beta=0.20$). Compared with males, low maternal attachment/monitoring was significantly related to female high risk-taking, and this relationship appears to be stronger than for males ($\beta=0.24$, $p<.001$). In addition, unlike for male high risk-taking, low paternal attachment/monitoring was not related to female high risk-taking.

Neither maternal nor paternal harsh disciplines were significantly related to males' high risk-taking. For females, however, both maternal ($\beta=0.16$, $p<.05$) and paternal ($\beta=0.17$, $p<.05$) harsh discipline were significantly linked with high risk-taking. Only maternal harsh discipline continued to be a significant factor for high risk-taking when control variables were included.



*p<.05, **p<.01, ***p<.001
Strength is determined by the correlation R; the value in parentheses represents the strength of the indirect effect

Fig. 2 Strength of paths for mediation models with significant indirect effects of parenting, risk-taking, and delinquency

When adjusting for the control variables in Model 2, previous significant relationships remained so, although the strength of the relationships decreased. For males, maternal and paternal attachment/monitoring were both significantly associated with risk-taking and both of these relationships were similar in strength (β=0.16, p<.001). The prior significant relationship between maternal attachment/monitoring and female risk-taking also decreased in strength (β=0.17, p<.01). For both genders, having close friends picked up by the police (males' β=0.20, p<.01; females' β=0.24, p<.01) and having low shame (males' β=0.16, p<.01; females' β=0.20, p<.05) also were significantly related to high risk-taking.

Risk-taking and Delinquency

Males who self-reported either low maternal (β=0.23, p<.001) or paternal (β=0.13, p<.01) attachment/monitoring also self-reported a significantly higher level of delinquency. For female delinquency, this was true only for low maternal attachment/monitoring (β=0.33, p<.001). However, paternal harsh discipline was also significantly associated with female

Table 2 Ordinary least squares regressions for the relationship between parenting and high risk-taking for males and females

Independent variables	Males						Females					
	Maternal			Paternal			Maternal			Paternal		
	b	SE	*β*	*b*	SE	*β*	*b*	SE	*β*	*b*	SE	*β*
Model 1												
Low attachment/monitoring	0.36	0.08	0.21***	0.33	0.08	0.20***	0.40	0.13	0.24**	0.03	0.15	0.02
Harsh discipline	0.02	0.09	0.01	0.02	0.08	0.01	0.27	0.13	0.16	0.30	0.15	0.17*
(intercept)	1.34	0.25		1.27	0.26		0.38	0.33		1.07	0.42	
R^2	0.04			0.03			0.09			0.02		
Model 2												
Low attachment/monitoring	0.27	0.08	0.16***	0.26	0.08	0.16**	0.29	0.13	0.17*	−0.10	0.14	−0.06
Harsh discipline	0.01	0.08	0.01	0.06	0.08	0.03	0.26	0.13	0.15*	0.20	0.14	0.12
Troubled peers	0.52	0.12	0.20***	0.58	0.12	0.22***	0.57	0.18	0.24**	0.75	0.18	0.32***
Low shame	1.15	0.33	0.16***	1.11	0.34	0.15**	1.58	0.61	0.20**	1.71	0.64	0.22**
Low school bond	0.01	0.09	0.002	−0.01	0.10	−0.01	−0.10	0.18	−0.05	0.04	0.19	0.02
(Intecept)	1.01	0.29		0.82	0.30		0.37	0.33		0.88	0.53	
R^2	0.11			0.11			0.17			0.15		

Note: Adjusted R^2 is reported

*p<.05; **p<.01; ***p<.001

delinquency (β=0.20, p<.05). The significance of this relationship disappeared, however, once high risk-taking was included (Model 2).

The strength of the relationship between low maternal attachment/monitoring and delinquency decreased for both males (β=0.23 to β=0.17) and females (β=0.33 to β=0.23) when high risk-taking was integrated. This relationship, however, remained significant, demonstrating that high risk-taking does not completely explain away the importance of low maternal attachment/monitoring on delinquency. Compared with low maternal attachment/monitoring though, high risk-taking is significantly and highly associated with delinquency despite the inclusion of parenting factors.

In Model 3, low maternal attachment/monitoring and high risk-taking remained significantly related to delinquency for both genders when control variables were adjusted. However, high risk-taking and having a high number of close friends picked up by the police were more important to delinquency than low maternal attachment/monitoring for males (β=0.24 and 0.28 vs. 0.14), while for females, this only applied to high risk-taking (β=0.34 vs. 0.19).

Parenting, Risk-taking, and Delinquency

As previously mentioned, the formula from Clogg et al. (1995) for testing between-group differences was used to examine whether poor maternal parenting had a stronger relationship to high risk-taking and delinquency as poor paternal parenting had within gender. Table 3 refers to prior Tables 2 and 4 and used a one-tailed z-test (i.e., the critical value is above 1.65, p<.05) because the paper's relationships were directional. For males, there was no significant difference between poor maternal and paternal parenting with the exception of Model 2 where the outcome variable was delinquency. Low maternal attachment/monitoring had a significantly higher relation to delinquency than low paternal attachment/monitoring had, even when high risk-taking and harsh discipline were included in the model (z=1.72, p<.05). Within females, only low maternal attachment/monitoring was significantly different from low paternal attachment/monitoring. The reason was in every model, regardless of whether the outcome variable was high risk-taking or delinquency, the z-score was significant. Maternal and paternal harsh discipline, however, were not significantly different from each other in any of the models.

Table 3 z-test of between-group differences between poor maternal and paternal parenting in males and females

	Males		Females	
	Maternal vs. paternal		Maternal vs. paternal	
	Low attachment/monitoring	Harsh discipline	Low attachment/monitoring	Harsh discipline
High risk-taking				
Model 1	0.27	0.00	1.86*	−0.15
Model 2	0.09	−0.44	2.04*	0.31
Delinquency				
Model 1	1.56	0.28	2.49*	−1.50
Model 2	1.72*	0.28	1.98*	−1.51
Model 3	1.56	−0.14	2.16*	−1.22

One-tailed test, critical value=+1.65

Table 4 Ordinary least squares regressions for factors related to self-reported delinquency for males females

Independent variables	Males						Females					
	Maternal			Paternal			Maternal			Paternal		
	b	SE	*β*	*b*	SE	*β*	*b*	SE	*β*	*b*	SE	*β*
Model 1												
Low attachment and monitoring	0.24	0.05	0.23***	0.13	0.05	0.13**	0.32	0.08	0.33***	0.02	0.09	0.02
Harsh discipline	0.09	0.05	0.08	0.07	0.05	0.07	0.03	0.08	0.03	0.21	0.09	0.20*
(Intercept)	0.21	0.15		0.46	0.16		−0.12	0.19		0.12	0.24	
R^2	0.06			0.02			0.10			0.03		
Model 2												
Low attachment and monitoring	0.17	0.04	0.17***	0.06	0.05	0.06	0.22	0.07	0.23**	0.01	0.08	0.01
Harsh discipline	0.09	0.05	0.08	0.07	0.05	0.06	−0.03	0.07	−0.03	0.13	0.08	0.12
High risk-taking	0.18	0.03	0.31***	0.20	0.03	0.34***	0.24	0.04	0.41***	0.26	0.04	0.45***
(Intercept)	−0.04	0.14		0.21	0.15		−0.21	0.17		−0.16	0.22	
R^2	0.14			0.12			0.26			0.23		
Model 3												
Low attachment and monitoring	0.14	0.05	0.14**	0.03	0.05	0.03	0.18	0.07	0.19**	−0.05	0.08	−0.05
Harsh discipline	0.08	0.05	0.07	0.09	0.05	0.09*	−0.03	0.07	0.10	0.08	0.10	
High risk-taking	0.14	0.03	0.24***	0.15	0.03	0.26***	0.19	0.04	0.34***	0.21	0.05	0.35***
Troubled peers	0.44	0.07	0.28***	0.44	0.07	0.28***	0.22	0.10	0.16*	0.26	0.11	0.19
Low shame	0.03	0.19	0.01	0.02	0.20	0.01	0.69	0.33	0.15*	0.59	0.35	0.13
Low school bond	0.06	0.05	0.05	0.13	0.05	0.11*	0.04	0.09	0.03	0.15	0.10	0.11
(Intercept)	−0.30	0.16		−0.25	0.17		−0.37	0.25		−0.41	0.29	
R^2	0.22			0.21			0.29			0.27		

Note: Adjusted R^2 is reported

*p<.05; **p<.01; ***p<.001

To confirm the previous findings that used regressions and to examine whether high risk-taking mediated the relationship between poor parenting and delinquent involvement, Table 5 presents the bootstrapping results. For both males and females, high risk-taking significantly mediated the relationship between low maternal attachment/ monitoring (males' z=2.84, p<.01; females' z=2.28, p<.05). Although there was a significant mediation (indirect) effect, it did not completely explain away low maternal attachment/monitoring as indicated by its significant relationship with delinquency after adjusting for high risk-taking (males' B=0.13, p<.05; females' B=0.18, p<.05). These findings from Table 5 also support the previous findings in Table 4.

High risk-taking, however, did explain away the relationship between low paternal attachment/monitoring and delinquency for males (z=2.79, p<.01) and also the relationship between maternal harsh discipline and delinquency for females (z=2.23, p<.05). These findings are supported in Table 4, but the exception is paternal harsh discipline. Accounting for all other variables seems to have made paternal harsh discipline significantly related to male delinquency in Table 4. The bootstrapping analyses though, reveal that this relationship was nonsignificant. Generally, however, the findings show that these particular relationships are explained partially by the mediation from high risk-taking. For instance, maternal harsh discipline no longer explained females' delinquent involvement when high risk-taking was included into the relationship. According to the mediation model, an increase in harsh discipline from mothers led females to increase their risk-taking. Considering their high level of risk-taking, these females also engaged in more frequent and more serious forms of delinquency.

Discussion

The present study aims to examine the relationship between risk-taking and delinquency in Japanese context. It could be argued that the reason why risk-taking is strongly and significantly related to delinquency is that both risk-taking and delinquency measure the same underlying construct. However, this is incorrect because risk-taking includes diverse behaviors that also may be pro-social, whereas delinquency may involve the legal system (Leas and Mellor 2000). In briefly reviewing the literature on risk-taking in Japan, parenting was an important influence on levels of youths' risk-taking and delinquency. This relationship between parenting, risk-taking, and delinquency was similar to the criminological literature positing the same relationship. Thus, the key questions of the study focused on the extent to which this identified relationship between parenting, risk-taking, and delinquency was empirically supported.

The findings primarily support the mediating role of high risk-taking between parenting and delinquency. These findings, however, are restricted to low maternal and paternal attachment/ monitoring and maternal harsh discipline. For both males and females, low maternal attachment and monitoring was particularly relevant to high risk-taking and high delinquent involvement. Although high risk-taking explained why low maternal attachment and monitoring was related to delinquency, it was unable to explain the relationship completely. Observing the size of the mediation vs. the direct effect, the size of the mediation effect[4] was not large,[5] especially compared with the direct effect.[6] This means that low maternal

[4] For males, low maternal attachment/monitoring to high risk taking=0.16 and high risk taking to delinquency= 0.24. For females, low maternal attachment/monitoring to high risk taking=0.24 and high risk taking to delinquency=0.34.

[5] For males, 0.16*0.24=3.8 %; for females, 0.24*0.34=8.2 %). These values, however, are more applicable to variables that are normally distributed ratio scales with no error,. but they were included as a gauge of the mediation effect from the study's measures.

[6] Low maternal attachment/monitoring to delinquency for males=23 % and for females=33 %.

Table 5 Bootstrapping results with 95 % confidence intervals for parenting, high risk-taking, and delinquency mediation models for males and females

	Males						Females					
	Bootstrapping						Bootstrapping					
	BC 95 % CI						BC 95 % CI					
	b	SE	*z*-score	Point estimate	Lower	Upper	*b*	SE	*z*-score	Point estimate	Lower	Upper
Maternal attachment and monitoring EV												
MA/M to risk (a)	0.27**	0.08					0.36**	0.13				
Risk to delin (b)	0.14***	0.03					0.19***	0.04				
MA/M to deblin (c′)	0.13*	0.04					0.18*	0.07				
Indirect effect	0.04**	0.01	2.84	0.04	0.02	0.07	0.07*	0.03	2.28	0.07	0.02	0.15
Maternal harsh disipline EV												
MHD to risk (a)	0.01	0.08										
Risk to deblin (b)	0.15***	0.03					0.21***	0.07				
MHD to deblin (c′)	0.08	0.05					0.01	0.07				
Indirect effect	0.002	0.013	0.14	0.002	−0.02	0.03	0.07*	0.03	2.23	0.07	0.02	0.15
Paternal attachment and monitoring EV												
PHD to risk (a)	0.26**	0.08					−0.06	0.14				
PHD to risk (a)	0.26**	0.08					-0.06	0.14				
Risk to deblin (b)	0.16***	0.03				0.21***	0.05					
PHD to deblin (c′)	0.09	0.04				0.09	0.07					
Indirect effect	0.01	0.01	1.01	0.01	−0.01	0.04	0.04	0.03	1.42	0.04	−0.01	0.11

Note: for bootstrap analyses, bias corrected (BC) confidence intervals are presented. Control variables were also included in these analyses but were not displayed as to direct focus on main measures of interest

MA/M maternal attachment monitoring, *MHD* maternal harsh discipline, *PA/M* paternal attachment/monitoring, *PHD* paternal harsh discipline, *risk* high risk-taking, *delin* delinquency, *EV* explanatory variable

*$p<.05$; **$p<.01$; ***$p<.001$ (two-tailed test; critical value, +1.96)

attachment and monitoring had more of a direct effect on delinquency than it did through high risk-taking. It seems that, aligned with the literature on Japanese society, the influence of maternal attachment and monitoring plays an important and direct role in decreasing delinquency. Moreover, in previous studies that examined the relationship between parenting, self-control, and delinquency, self-control was also unable to eliminate the direct effect between parenting and delinquency (Burt et al. 2006; Hay 2001; Perrone et al. 2004). Future studies are needed to explore other mediating factors that may completely explain the relationship between maternal attachment/monitoring and delinquency.

Poor maternal parenting was a consistently stronger explanation for risk-taking and delinquency than was poor paternal parenting. As previously noted, the mother–child bond is an important tool for the socialization process in Japan because the mother is the first agent of socialization a child encounters. Also, compared with fathers, mothers are expected to stay at home and be the domestic caretaker. Thus, it is no surprise that experiencing poor maternal parenting, as opposed to poor paternal parenting, would be more strongly related to risk-taking and delinquency. But for males, poor paternal attachment/monitoring explained higher levels of risk-taking. This relationship is inapplicable to females and it could be that they are more affected by their mothers than by their fathers because of gendered roles and expectations; the same interpretation could be applied to why poor paternal attachment/monitoring affected males.

Furthermore, the combination of parental attachment and monitoring[7] is misleading because it could be that low parental monitoring was a stronger correlate than low parental attachment. If so, then the model should not have included parental attachment. Thus, it was unclear which of the constructs had more influence on delinquency. Merging parental attachment and monitoring was required because of multicollinearity. A brief test within maternal parenting, however, reveals that the strength of the relationship between maternal attachment and female delinquency was only marginally larger than maternal monitoring (R=0.30 as opposed to R=0.29); the strength of the relationship between maternal attachment and male delinquency was smaller than maternal monitoring (R=0.15 as opposed to R=0.22). Consequently, it seems that both attachment and monitoring contribute similar strengths in their relation to delinquency.

In regard to parental harsh discipline, females were more affected by harsh discipline compared with males. Additionally, parental harsh discipline was related to negative behaviors, specifically female high risk-taking and delinquency. It seems that the literature on East Asian cultures and their views on parental harsh discipline are not applicable in the Japanese context. A common flaw in studies that examine phenomena in East Asian cultures is the assumption that because of their seemingly similar roots, they are monolithic (Karstedt 2001).

Limitations

As the present study was a cross-sectional design, it is unclear whether poor parenting actually predicts high risk-taking and high risk-taking actually predicts delinquency. A longitudinal design would have been ideal, as it would have established predictability of the factors. Furthermore, because the sample comprised students from two private high schools, it is also uncertain to what extent these findings are generalizable.

[7] Originally, maternal attachment and monitoring were highly correlated (R=.49) but paternal attachment and monitoring was not highly correlated (R=.35), and it was decided to combine these measures and separately analyze maternal and paternal parenting.

The present study investigated the parenting explanation for the relationship between risk-taking and delinquency. Scholars investigating the relationship between risk-taking and delinquency, however, have questioned the strength of the parenting and risk-taking relationship. Examining self-control, Beaver et al. (2010), for instance, discovered that without controlling for genetic influences, many aspects of parenting were significantly linked to low self-control. However, once genetic influences were included into the relationship between parenting and self-control, this relationship became nonsignificant. It is recognized that because the study chose parenting to explain the risk-taking and delinquency relationship, the study was unable to account for other, and perhaps more significant, explanations such as generational transmission or the heritability of risk-taking. It could also be argued that misbehavior may increase poor parenting instead of vice versa. However, the framework of the study was chosen based on the literature on Japanese risk-taking and delinquency. Additionally, because Japanese society encourages low risk-taking, it would be difficult to distinguish whether risk-taking is heritable or the result of cultural socialization, as low risk-taking is considered a desired value to be passed down to future generations. The present study was also unable to confirm whether the Japanese context did have relatively lower risk-takers and lower delinquency because of effective parenting. Further research, particularly a comparative one, is called for to investigate other explanations for the relationship between risk-taking and delinquency in the Japanese context.

Conclusions

Approaches to understanding crime in different milieus tend to merely employ what is established in Western contexts to a non-Western one without initial understanding of how established criminological knowledge is framed within that particular non-Western context. Though this approach of applicability is important in understanding crime in different cultural contexts, it produces ad-hoc explanations for perceived differences and similarities, and does little to merge both the context and established criminological literature together. Future studies of crime in different cultural contexts may benefit from identifying similarities between the context and the criminological literature. This approach will better frame the topic of interest and produce a more accurate investigation of criminological phenomenon in unfamiliar contexts.

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