**Potential Risk and Promotive Factors for Serious Delinquency in Japanese Female Youth**

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Word count: 5,566 without references / 8,041 with references

Acknowledgements, The authors thank 社会安全研究財団 (Research Foundation for Safe Society) and the Great Britain Sasakawa Foundation for their generous support

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In Japan, concerns toward contemporary youth offending and violence have resulted in multiple changes in the treatment of youth. These changes are the result of negative societal perceptions of youth following a string of violent youth-on-youth murders and media sensationalizing juvenile crimes. Compared to what is known about male criminality, very little is known about female criminality, particularly about important risk and promotive factors for delinquency. Using the risk factor prevention paradigm, the study investigates potential risk and promotive factors for delinquency in 219 Osaka female youths, aged 15-18. The findings show that the strongest risk factors were high risk-taking and having troubled peers, whereas having a non-working mother had promotive effects. Females were also compared to males, and the only significantly different factor was having a non-working mother. Compared to males, the prevalence and frequency of delinquency were lower for females, which is aligned with previous findings.

Keywords: Japan, risk factors, delinquency, females, gender discrepancy, promotive factors

# Introduction

Two types of groups are often under-represented in criminological risk factor research: non-Western societies and females. The reasons for the under-representation of these groups are the fact that criminology has historically been Western-centric and a gender discrepancy in criminal involvement exists. What is known about relationships between risk and promotive factors for crime has been based on Western populations, as the primary development of the field was in North America and Europe (Liu, 2009). The gender discrepancy stems from established knowledge that males commit most of the serious predatory and violent offences, and consequently much of the longitudinal research on risk factors for offending has concentrated on males (Farrington & Painter, 2004; Farrington & Welsh, 2007).

Few English language studies have studied relationships between risk and promotive factors and offending in Japanese females. In fact, only one study has specifically examined factors for female offending in terms of risk and promotive factors (see Laser et al., 2007). The present study applies the “risk factor prevention paradigm” (Farrington, 2000) to the study of female serious delinquency in Japan. Understanding contemporary female serious delinquency in Japan is needed as, since the 1970s, female delinquency has increased (Nakatani, 1990).

***Reasons for female delinquency in Japan***

 Commentators and critics in Japan believe that the possible causes for contemporary delinquency are the following: urbanization and atomization, the breakdown of family and effective parenting, an intense focus on exams and entering prestigious schools, an increase in materialism and commercialism, harmful forms of popular culture, and opportunities for illicit sexual activity (Ambaras, 2006). These proposed underlying causes are not only specific to delinquency, but also extend to school problems and bullying (Okada, 2003). Much of the literature identifying reasons for delinquency in Japan pertain to both males and females, unless otherwise stated, and they fall into five primary categories: Individual, parents /family, school, peers, and community.

*Individual*

Characteristics of low self-control have shown to be significantly related to delinquency in Japan. Vazsonyi and colleagues (2004) tested whether low self-control, as defined by Gottfredson and Hirschi (1990), was applicable to deviance in late Japanese adolescents. They found that low self-control was applicable for deviance in both males and females. Kobayashi and colleagues (2010) also found overall support for the relationship between low self-control and deviance among Japanese students. Bui (2014) found that high risk-taking, a highly salient component of low self-control (Hay, Meldrum, Forrest, & Ciaravolo, 2010), was a significant mediator between poor parenting and delinquency in the Japanese context. Youths who were arrested usually cited the thrill of risk-taking as their reason for offending (White, 1994).

The community also affects individual behavior. Komiya (1999) proposed that informal social control, through meticulous rules imposed by social groups one affiliated with, was an effective crime prevention measure in Japan. Social groups, that one has membership with, restrain the individual from committing inappropriate behaviour. Thus, opinions and esteem from these groups matter to the individual.

*Parents/ Family*

Scholars have noted that poor parent-child bonding, low parental supervision, and lack of parental discipline were significantly linked to Japanese youth offending (Crystal, 2000; Foljanty-Jost & Metzler, 2003; Nakatani, 1990; Yoder, 2011). DeVos and Wagatsuma (1984) compared childrearing from parents of delinquent and non-delinquent youths in Arakawa Ward. They found that parents of delinquent youth were less responsive to their children’s emotional needs, had more difficulty in accepting their parental roles, and were more likely to express frustration by using harsh discipline. Having parental support, however, was conducive to obedience in children, whether they were delinquent or not (Tsutomi, 1991). In addition, a poor maternal relationship was more associated with youth offending than a poor paternal relationship (Bui, 2014; Crystal, 1994). Laser and colleagues (2007) showed evidence that history of sexual abuse was significantly related to delinquent behaviour for females. From other studies of Japanese female delinquency, sexual abuse has also been linked to low self-esteem, decreased attachment to family, and poor parenting (Matsuura, Hashimoto, & Toichi, 2009, 2013; Takii, 1992).

*School*

Using a life-course perspective, Yutaka Harada (1995) found that the peak age of arrests occurred at 14 years of age because of the meritocratic and very competitive nature of junior high schools, which clearly distinguished high-achievers from low-achievers. This gave low-achieving students little incentive to do well in school and increased their risk of offending (Foljanty-Jost & Metzler, 2003). Receiving poor academic results, having low school aspirations, experiencing trouble at school, and failing to complete high school education were also linked with delinquency (Yoder, 2004). Aspirations for higher education among youth offenders have also been found to be much lower than that of the general youth population (Yonekawa, 2003, p. 124). When asked about their academic ability, the majority of delinquent youth answer that they are among the lowest in their classes (Harada, 1992; Yamamiya, 2003).

*Peers*

In a comparative study between Japanese and American male youths, having deviant close friends was one reason that explained the higher prevalence of youth violence in Japanese males compared to American males (Bui, Farrington, Ueda, & Hill, 2014). Those who were delinquent tended to associate with those who were antisocial and academically unsuccessful (Yamamiya, 2003; Yonezato, 1992). Reasons given for associating with delinquent peers was feeling stronger and invincible in the presence of these peers (Yamamiya, 2003).

*Community*

As previously mentioned, informal social control helped to regulate individual behavior. Tanioka and Glaser (1991) concluded that a combination of being identifiable (wearing school uniforms) and informal social control (through volunteer family, school, and police informants) was related inversely to delinquency. Both of these factors helped to regulate and monitor youth behaviour. For example, ensuring student conformity in appearance through similar uniforms and hairstyle (Kersten, 1993). Informal social control is particularly effective when the community is familiar with its neighbours. Consequently, many parent and neighbourhood organizations have emerged among Japanese communities, which have produced frequent reports to the police of suspicious activity (Hamai & Ellis, 2008).

*Applying the risk factor prevention paradigm to Japanese females*

Efforts have been made to identify the most important factors that place individuals at risk for offending. These factors are referred to as risk factors, and they are defined as variables that predict a high probability of offending (Farrington & Ttofi, 2011). The purpose of identifying these factors is to target them to prevent offending through interventions and prevention programmes (Farrington, 2007). Examining factors for serious delinquency as risk factors enable findings to be accessible to policy-makers and practitioners (Loeber & Farrington, 2000). The concept of risk factors was first introduced to criminology from early work derived from public health research, which identified factors that either enhanced or reduced the odds of substance and alcohol misuse in adolescence and early adulthood (see Hawkins, Catalano, & Miller, 1992). These factors are usually dichotomized because they make it easy to study interaction effects, to identify high-risk individuals, and to communicate results to a broader audience (Farrington & Loeber, 2000).

Previous reviews and meta-analyses have found that multiple individual, familial, peer, school, and community risk factors are associated with increased risk for delinquent involvement. Specifically, these factors are disrupted families, parental conflict, poor child rearing (e.g., harsh discipline, poor parental monitoring, and attachment), an unemployed parent, low intelligence, impulsiveness, antisocial parents, large families, low socio-economic status, delinquent peers, high delinquency schools, poor academic performance, weak bonding to school, low school aspirations, disorganized neighbourhoods, and neighbourhood disadvantage (Derzon, 2010; Farrington, 2005; Hawkins et al., 1998; Jolliffe & Farrington, 2009; Lipsey & Derzon, 1998; Loeber & Farrington, 1998, 2000; Loeber, Stouthamer-Loeber, Kammen, & Farrington, 1991).

In addition to risk factors, studying promotive factors for offending is also important in identifying the most salient factors to target in interventions and in policy. Unlike risk factors, promotive factors have been less studied in research that identifies relationships between factors and delinquency. Loeber and colleagues (2008) defined promotive factors as factors that predict a low probability of offending (Farrington, Loeber, & Ttofi, 2012). Promotive factors are considered a type of protective factor and refers to the desirable end of an explanatory variable’s distribution (Stouthamer-Loeber, Loeber, Wei, Farrington, & Wikström, 2002).

The benefit of studying desirable factors is that it is a more positive approach and is more attractive to communities than studying only risk factors, which emphasize deficits and problems (Pollard, Hawkins, & Arthur, 1999). The majority of research on promotive factors is related to the study of resilience in developmental psychopathology (Lösel & Farrington, 2012; Rutter, 2012). Lösel and Farrington (2012) reviewed literature on promotive factors and identified 30 promising individual, family, school, peer, and neighbourhood factors. Examples of these were low impulsivity, intensive parental supervision, bonding to school, nondeviant good friends, and cohesion and informal social control.

Sometimes, though, risk factors are thought to also be promotive factors because of the belief that the opposite of a risk factor must be positive; in other words, risk and promotive factors are the opposite ends of the same variable. This, however, may not be true in some cases because the variable’s relationship to delinquency may be non-linear (Farrington & Ttofi, 2011; Farrington, 1995; Stouthamer-Loeber et al., 2002). Some variables, for example, may have effects on the promotive end that may not only reflect the absence of risk but may also increase the probability of desirable development (such as no aggravation of serious delinquency) (Lösel & Farrington, 2012) A specific example would be disadvantaged communities: Stouthamer-Loeber and colleagues (1993) found that community variables had only risk effects.

*Gender Differences in risk factors*

 Most of the knowledge on risk factors, however, is focused on males (Farrington & Welsh, 2007). The reason is that, compared to females, males commit most of the serious predatory and violence offences, and their offence frequency is higher (Baglivio et al., 2014; Lanctot & LeBlanc, 2002). One important debate within the research literature on gender differences in offending is whether findings established for males generalize to females (Daly & Chesney-Lind, 1988; Fergusson, Woodward, & Horwood, 1999; Johansson & Kempf-Leonard, 2009).

Studies have shown that females share many risk factors for delinquency with males (Fergusson & Horwood, 2002; McCord, Widom, & Crowell, 2001). A review of large scale comparative community studies of delinquency showed that risk factors shared for both males and females were parental criminality, harsh or inconsistent parental discipline, poor parental supervision, low parental attachment and involvement, parental conflicts and broken families, and young mothers (Farrington & Painter, 2004). In other studies, early drug use (Moffitt, Caspi, Rutter, & Silva, 2001), association with delinquent peers (Weerman & Hoeve, 2012), and problems in school were similarly shared between genders (McCord et al., 2001). Farrington and Painter (2004) found that, although socio-economic and child-rearing risk factors were similar between genders, they were more strongly related to females than to males.

***Key questions***

Not much is known about important risk and promotive factors for female serious delinquency in Japan. Knowledge on reasons for serious delinquency thus far have been generalized to both male and female Japanese youth so it is unclear whether there are unique factors for female serious delinquency. Key questions of the present study are the following:

1. What established risk factors apply to female serious delinquency in Japan?
2. Which variables that have been identified as possible risk factors are also promotive factors?
3. Are there significant differences in the relationships between risk factors and serious delinquency for females and males?

**Methods**

In May 2011, a total of 878 high school students located in the Osaka prefecture area participated in the self-reported survey. The main focus is on the subsample of 219 females, but the comparative component will include 637 males, which amounts to a total of 856 students.[[1]](#footnote-1) The female students ranged from 15 to 18 years old; their mean age was 16.12 (SD=0.94). The small sample of females compared to males was because the schools were former all-male schools. Consequently, fewer females have applied to attend the schools because of their long time reputations as all-male schools.

Although the students were drawn from two high schools, the sample should be representative of these schools as the classes in each school were randomly chosen to participate in the survey. Students in these schools are representative of the student population in the Osaka prefecture because they come from a variety of socio-economic backgrounds. The Osaka prefectural government, in collaboration with the national government, supports tuition fees (up to ¥580,000) for students who come from households with low incomes (Ministry of Education, Culture, Sports, Science, and Technology, 2010) .

 The self-reported survey comprised questions on living arrangements, youths’ relationships with their parents, schools, communities, and delinquent involvement. Japanese- specific items were also included such as attitudes indicating shame and loss of face, *pachinko* (gambling slot) involvement, and being locked out of the house as a form of harsh discipline. The survey was originally designed in English, and a back translation (Brislin, 1970; Matsumoto & Juang, 2004) ensured that items were successfully translated from English to Japanese, and then back again into English without reference to the original text.

***Measures***

*Outcome: Delinquency (and Deviance)—*

Respondents were asked how many times (none, 1 to 2 times, 3 or more times), in the past year, they had committed the following acts: (1) smoking cigarettes; (2) drawing graffiti on buildings or other property (without the owner's permission); (3) breaking into a house, store, school or other building without the owner's permission; (4) taking a bicycle/ scooter /motorbike for a ride without the owner’s permission; (5) shoplifting; (6) picking a fight with someone; (7) hurting someone in a fight; (8) running away from home; (9) pachinko; (10) staying overnight without parents’ permission; and (11) taking parents’ money without permission. This measure is based on a previous one of delinquent and deviant behaviour in Japan (see Harada, Suzuki, Inokuchi, & Suzuki, 1995).

The outcome measure considered the seriousness and frequency of offences by using Wolfgang et al.'s (1985) seriousness scale and Le Blanc and Frechette's (1989) average seriousness scores.[[2]](#footnote-2) This approach multiplies the scores[[3]](#footnote-3) by the response of each delinquency item, and each new score from each item was added together, resulting in a cumulative “offending gravity score.” Using these scores confirms that more serious offences are given more weight than less serious ones, while accounting for both frequency and seriousness (Kazemian, Farrington, & Le Blanc, 2009). For example, if a student self-reported as having shoplifted 1 to 2 times (a score of 1), this number was multiplied by 2.20, which was the seriousness score for shoplifting. The scores of the 11-items were subsequently added together to form the final delinquency score; Next, the measure was dichotomized to identify the 25% most delinquent and deviant versus the remaining 75% of students; the top 25% will be referred to as serious delinquents. The one-quarter/ three-quarters split was chosen because previous studies have used this method to identify a deviant minority and to identify the same proportion of those at risk for serious delinquency (Farrington & Loeber, 2000).

*Risk factors—*

Measures used in the study were categorized into the following domains: individual, parents/ family, peer, school, and community. These measures were based on previous studies of risk factors and delinquency in Japan. Reliability scores are shown below (if applicable) before dichotomization. Each measure was dichotomized into risk factors so that a score of 1 meant at-risk whereas a score of 0 meant not at-risk. Measures that were on a scale, for example, were summed and dichotomized to contrast the worst half of youths with the other half. Exemptions are specified below. The following risk factors were analysed (see Table 1):

*Individual variables* (4 measures) *—* These includehigh risk taking (α=0.80), uninhibited beliefs toward delinquent involvement (α=0.86), loss of face (α=0.90), and social desirability (KR-20= 0.48). *High risk taking* comprised 5 items and was based on items asking respondents the average frequency (1= never, 2=once but not in last year, 3= less than once a month, 4=once a month, 5=two-three times a month, 6= more than once a week) in which they (1) shock people just for the fun of it; (2) do what feels good regardless of consequences; (3) do something dangerous because someone dared the respondent; (4) do risky things even if they are a little frightening; and (5) do crazy things to see the effect on others; *uninhibited beliefs* (made of 4 items; believing they wouldn’t be caught by the police and feeling unashamed if they were caught gambling or stealing), *loss of face* (made of 2 items; believing that respondents would not lose respect of the people whose opinion respondents value if it was discovered respondent gambled or stole), and *social desirability* (made of 4 items; sometimes feeling resentful when not getting own way, not courteous to people who are disagreeable, not willing to admit an mistake, and sometimes trying to get even rather than forgetting) were measures of behaviours and beliefs indicative of low informal social control. Uninhibited beliefs towards delinquency and loss of face were rated on a 4-point scale (1=strongly disagree, 2=somewhat disagree, 3=somewhat agree, 4= strongly agree), whereas social desirability was rated as either 1=yes or 0=no.

*Parents/ family* (11 measures)—*Large family size* was the sum of three items asking respondents how many people lived with them, including how many parents. It was dichotomized to represent 0= less than four people and 1= five or more people. Maternal and paternal measures were analysed separately because previous literature had shown that maternal parenting was more significant than paternal parenting: *having no father or mother* (n=2) *having a father or mother not working* (meaning they were unemployed or have retired) were binary items (1=yes, 0= no). *Low monitoring* (paternal α=0.81; maternal α= 0.87) was two items measuring whether the parent knew where respondents were and who respondents were with when away from home; *poor* *support* (paternal α=0.82; maternal α= 0.87) was two items assessing if respondents found it difficult to discuss problems with parents and if respondents thought parents did not understand their thoughts and feelings; *harsh discipline* (paternal α=0.71; maternal α=0.68) was three items measuring if parents slapped or hit, yelled or screamed, and locked respondents out of the house as discipline. These parental items were rated on 4-point scales (1=never, 2=seldom, 3=sometimes, 4=often).

*Peers* (1 measure)—*Troubled peers* was one item in which respondents, who had either hadone to two or three or more close friends picked up by police, was rated as 1, whereas those who had no friends picked up by police were rated as 0.

*School* (3 measures) — *Low school bonding* comprised 1 item assessing the extent to which respondents agreed that getting good grades was important. This items were rated on a 4-point scale (1=strongly agree, 2=somewhat agree, 3=somewhat disagree, 4= strongly disagree). *Poor school ability* was one item asking respondents to rate their school ability in comparison with their peers. Those who rated themselves as below average or among the worst were given a score of 1, whereas those who rated themselves as average, above average, or among the best were given a score of 0. *Low school aspiration* was a one item measure, which asked respondents how much schooling they would like to get eventually. This item had three options. Respondents who only wanted to receive schooling up to high school graduation or on the job apprenticeship/ junior college were given a score of 1. Respondents who would like to receive a 4-year college education or higher were given a score of 0.

*Community* (1 measure) —*Knowing few neighbours* was a one-item measure asking respondents how well they knew the people living in their neighbourhood. Those who responded that they only knew a few or knew no one were given a score of 1, whereas those who responded that they knew quite a few or most of their neighbours were given a score of 0.

***Analysis plan***

First, logistic regression was used to obtain the odds ratios (ORs) of unadjusted and adjusted relationships between risk factors and serious delinquency for females. We also included the prevalence of serious delinquents in risk (percentage of serious delinquents out of those who scored 1 for the risk factor) and non-risk (percentage of serious delinquents out of those who scored 0 for the risk factor) categories. This information was available through 2 x 2 contingency tables. Showing the prevalence of serious delinquents in risk and non-risk categories gives further insight into why the relationship between risk factor and outcome is significant or non-significant.

 Second, the original scores of variables (before they were dichotomized) that were identified as significant risk factors were trichotomized into the “worst” quarter (lower 25%), the middle half (middle 50%), and the “best” quarter (upper 25%) according to each variable’s score distribution. The purpose was to examine whether risk factors were also promotive factors. In trichotomizing the variable, the worst quarter represents the risk end, the middle is neutral, and the best quarter represents the promotive end (Farrington & Ttofi, 2011; Loeber et al., 2008; Pardini, Loeber, Farrington, & Stouthamer-Loeber, 2012). In some cases, a cutoff at the 25th percentile was not possible, and a cut-off nearest to that point was used (Herrenkohl, Lee, & Hawkins, 2012). Variables that were inherently binary, such as mother not working, were omitted from this analysis. The reason was binary variables did not have a score distribution. Each end of the variable (risk and promotive) was compared to the middle half using logistic regression.

Third, to assess whether there were differences between genders in delinquency prevalence and risk factors, we obtained the ORs of similar risk factors for serious delinquency from the 637 males. Next, we used an equation based on the z-score of between- group differences from Paternoster and colleagues (1998). The difference between the present use of the equation and the original one was its use of the OR instead of the regression coefficient (b). The z-score was derived by obtaining the difference between the logged ORs and dividing it by the pooled standard error. Fourth, the prevalence and averages of each delinquent and deviant act were obtained to compare differences between genders.

**Results**

***What established risk factors apply to female serious delinquency in Japan?***

Unadjusted relationships were first examined: Of the 21 risk factors, about half were significantly related to serious delinquency (Table 2). The strongest risk factor was high risk taking (OR = 5.42, 95% CI= 2.71-10.82, p < 0.001). Maternal low monitoring (OR = 3.67, 95% CI = 1.82-7.41, p < 0.001) and troubled peers (OR = 3.63, 95% CI = 1.78-7.40, p < 0.001) were the next strongest risk factors. All factors within the individual category were significant.

 Both paternal (OR = 2.68, 95% CI = 1.28- 5.60, p = 0.009) and maternal (OR = 3.67, 95% CI = 1.82-7.41, p < 0.001) low monitoring were significant risk factors, including having no father (OR = 2.31, 95% CI = 1.07-4.96, p = 0.032). Having a mother not working was protective against serious delinquency (OR = 0.30, 95% CI = 0.12 – 0.75, p = 0.011). Having friends picked up by the police (OR = 3.63, 95% CI = 1.78-7.40, p < 0.001), low school bonding (OR = 2.20, 95% CI = 1.14-4.24, p = 0.019), and poor school ability (OR = 2.35, 95% CI =1.22-4.51, p = 0.010). All significant risk factors showed that a higher prevalence of serious delinquents was found in the risk categories. For example, 26 out of 50 at risk for high risk taking were serious delinquents (52%) compared to 27 out of 162 who were at non-risk for high risk taking (17%). The only exception was having a non-working mother. Out of those who were at non-risk, 29% were serious delinquents compared to 11% in the risk category.

 Table 3 shows the adjusted model, which includes all the significant factors from the previous analysis. Having no father was omitted in this model because paternal low monitoring was included. Once significant factors were simultaneously included into the model, only two risk factors were significant: high risk taking (OR = 3.95, 95% CI = 1.09-14.25, p = 0.036) and troubled peers (OR = 5.40, 95% CI = 1.30-22.50, p = 0.021).

***Which variables that have been identified as risk factors are also promotive factors?***

Risk-taking was both a risk (OR = 12.89, 95% CI = 2.71-61.18, p< 0.001) and promotive factor (OR = 0.22, 95% CI = 0.09-0.52, p < 0.001), as shown in Table 4. If the odds ratio of low risk-taking (promotive factor) was flipped to be above 1 (by scoring the outcome to be 1 for the 75% remainder and 0 to the 25% most delinquent), the magnitude is greater for the risk than the promotive effect (OR = 12.89 vs. OR = 4.57). This means that the risk end of the variable has a stronger effect than the promotive end. With the exception of uninhibited beliefs (risk end could not be analysed), all identified significant factors were only risk factors for delinquency. Although having an unemployed mother was found to be protective against serious delinquency, it could not be examined for a risk effect because it was inherently dichotomous.

***Are there significant differences in the relationships between risk factors and serious delinquency for females and males?***

The significant risk factors for female serious delinquency were compared to their male counterparts (Table 5). Similarly, high risk taking (OR = 4.50, 95% CI = 3.50-6.62, p< 0.001) and troubled peers (OR = 9.69, 95% CI = 4.98 – 18.87, p < 0.001) were strongest for male serious delinquency. Having no father, a non-working mother, and paternal low monitoring were non-significant risk factors for males. Despite these non-significant findings, no important differences between genders were observed. The only exception was having a non-working mother (z= -4.62, p < 0.001).

**Discussion**

The present study identified risk and promotive factors for serious delinquency in Japanese females and compared these findings with those of Japanese males. The main reason for this study was that there is little knowledge on risk and promotive factors for offending in Japanese females. The current findings have advanced knowledge in the following ways: (1) identified individual, parenting, peer, and school risk factors for female serious delinquency; (2) identified promotive factors for female serious delinquency; (3) found that the strength of the factors for female serious delinquency were not significantly different from the ones for male serious delinquency except for having a non-working mother; and (4) showed that females have a significantly higher prevalence of vandalism than males, but overall, males self-reported a higher prevalence for many of the delinquent and deviant acts.

 Most of the identified factors for serious delinquency were similar to findings from longitudinal studies of risk factors in Western countries such as low school bonding and low maternal monitoring. With Japan’s particular cultural and historical context in mind, several factors specific to the Japanese context were included. Loss of face and shame were found to be specific contextual factors that were related to serious delinquency. The importance of these factors is unsurprising because Japanese relationships are seldom individualistic, as these relationships emphasize accountability within informal social groups (Vaughn & Tomita, 1990).

 Komiya (1999) explained that, as the result of Western interactions during the Meiji period, the Japanese developed dual norms: one that considered those affiliated with an individual’s informal social groups (*uchi*) and one that considered those outside of these informal social groups (*yoso*). For uchi, loss of face and shame are to be avoided, as these are the consequences of possible exclusion from valued social groups.

Face is a concept closely related to the Japanese concept of *mentsu*, and it refers to how favourable one appears in the eyes of others (Lin & Yamaguchi, 2011; Yamaguchi & Lin, 2007). As documented in cultural psychological research, the concept of face is found across cultures. In collectivist cultures like Japan (see Triandis, 1994), however, losing and gaining face not only impacts on the individual, but also on those affiliated with that individual (Smith, Fischer, Vignoles, & Bond, 2013, p. 227). As Ting-Toomey (1988) theorized, if self-identity is defined by one’s group rather than oneself in collectivist cultures, than one’s loss of face will cause others to lose face. Thus, it would be mutually beneficial to prevent any loss of face within one’s group. Within this context, a low sense of face loss and shame increases the risk of serious delinquency because these factors release the individual from the feelings of interpersonal obligations. The most important risk factors that were identified, however, were high risk-taking and having close friends picked up by the police; these risk factors had the strongest relation to serious delinquency when other factors were both unaccounted and accounted for in the model.

When differences in the strength of the relationships for high risk-taking and having troubled peers were examined, they were non-significantly different between females and males. Compared to culture-specific factors, like loss of face and shame, the strength of the risk factors, high risk-taking and troubled peers, support the applicability of previous research findings from Western populations.

 High risk-taking is one of many constructs that measure impulsivity, which is a crucial personality dimension that predicts offending (Farrington, 2007). As one of six components of low self-control as proposed by Gottfredson and Hirschi (1990), the strength of the relation between high risk-taking and criminal involvement even exceeds that of global self-control measures (Hay et al. 2010). Additionally, the influence of peers is important during adolescence and it is strongly related to youth offending (Elliott, Huizinga, & Menard, 1989). Associating with delinquent peers reflects an individual’s level of offending, although it does not predict individual offending (Lösel & Farrington, 2012); the finding may also reflect the same underlying construct as delinquency, although Farrington and colleagues (2002) found that peer delinquency was not a within-individual cause of individual delinquency. The salience of high risk-taking and troubled peers as important factors for serious delinquency for Japanese females supports previous findings on different groups and confirm the applicability of these risk factors to the Japanese context.

 No gender differences in offending were found with the exception of having a non-working mother. Previous studies have concluded that, generally, many risk factors for offending found for males were similar for females (see Farrington & Painter, 2004). The overall lack of gender differences in the study confirms prior findings. In this particular study, however, females who had a non-working mother were protected against risk of serious delinquency. This finding did not extend to males. This could be because a mother who is always available is likely to provide more socialization for girls regarding gendered roles and expectations. A stay-at-home mother may be protective against serious delinquency because of her supervisory presence. As mothers have traditionally been considered the main parents responsible for socializing children (Yoder, 2004), maternal presence may protect girls in particular; this may also explain why low maternal monitoring was found to be a risk factor, especially when the worst quarter was compared to the neutral 50% of the score distribution for maternal monitoring.

***Limitations***

There are a couple of limitations in this study: the shame and loss of face measures and the cross-sectional research design. The items that compose shame and loss of face were not ideal because they only included the specific hypothetical scenarios of stealing something and gambling. For example, one of the loss of face items asked respondents if people whose opinion they value would lose respect for them if they were caught stealing. Including a specified offence may not have measured these culture-specific variables very well. These items were originally intended to study the applicability of criminological theories. The use of well-validated shame and loss of face measures, such as the Loss of Face Scale (Zane & Yeh, 2002) would be helpful in evaluating the influence of these factors in the future. Finally, a longitudinal study would have been ideal as risk factors should only be termed risk factors if they precede the outcome in time (Murray, Farrington, & Eisner, 2009). The cross-sectional design creates uncertainty as to whether these correlates are really risk and promotive factors, or whether they are consequences of delinquency. Despite this limitation, the focus of the study was to identify potential risk and promotive factors. In addition, presenting criminological findings using the risk factor prevention paradigm is beneficial in making findings accessible to a broader audience. This is especially helpful for those who would like to conduct and follow future research on this topic. As our study is primarily an exploratory study of potential risk and promotive factors, replication using a longitudinal design is needed.

***Conclusion***

The present study advances knowledge into possible risk and promotive factors for serious delinquency in Japanese females. Farrington (2000) has highlighted that research from the “risk factor prevention paradigm” has cross-cultural roots and universal implications. Thus, it is important to investigate the applicability of risk factors across cultures and in different subgroups in order to understand the extent to which these factors operate similarly in different contexts, and to discover culture-specific factors. Doing so will create a more robust knowledge base of risk and promotive factors. In their study of risk and protective factors in a Chinese birth cohort, Taylor and colleagues (2004) concluded that although some factors are universal, the cultural context affects how additional factors operate in terms of risk and protection. Like these scholars, we encourage future research to discover, understand, and validate risk and promotive factors in different cultural contexts.

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| Table 2. Unadjusted relationships between risk factors and female serious delinquency |
| **Risk factor** | **Prevalence of delinquent/ total risk factor n (%)** | **OR** | **95% CI** |
| *Individual* | Yes / Risk | Yes / Nonrisk |  |  |
| High risk taking | 26 / 50 (52.00) | 27 / 162 (16.67) | 5.42 \*\*\* | 2.71-10.82 |
| Uninhibited beliefs  | 21 / 52 (40.38) | 34 / 165 (20.61) | 2.61\*\* | 1.34-5.10 |
| Low loss of face | 21 / 53 (39.62) | 34 / 165 (20.61) | 2.53\*\* | 1.30-4.93 |
| Low social desirability | 35 / 110 (31.82) | 19 / 104 (18.27) | 2.09\* | 1.10-3.96 |
| *Parents/family* |  |  |  |  |
| Large family size | 12/ 50 (24.00) | 42 / 159 (26.42) | 0.88 | 0.42-1.84 |
| Having no father | 14 / 35 (40.00) | 39 / 174 (22.41) | 2.31\* | 1.07-4.96 |
| Father not working | 3 / 6 (50.00) | 36 / 168 (21.43) | 3.67 | 0.71-18.94 |
| Paternal low monitoring | 20 / 59 (33.90) | 18 /112 (16.07) | 2.68\*\* | 1.28-5.60 |
| Paternal support | 15 / 69 (21.74) | 23 / 100 (23.00) | 0.93 | 0.44-1.94 |
| Paternal harsh discipline | 19 / 96 (19.79) | 19 / 74 (25.68) | 0.71 | 0.35-1.47 |
| Having no mother | 5 / 10 (50.00) | 46 / 196 (23.47) | 3.26 | 0.90-11.76 |
| Mother not working | 6 / 56 (10.71) | 40 / 140 (28.57) | 0.30\* | 0.12-0.75 |
| Maternal low monitoring | 21 / 46 (45.65) | 30 / 161 (18.63) | 3.67\*\*\* | 1.82-7.41 |
| Maternal support | 16 / 47 (34.04) | 34 /159 (21.38) | 1.90 | 0.93-3.87 |
| Maternal harsh discipline | 21 / 92 (22.83) | 30 /113 (26.55) | 0.82 | 0.43-1.55 |
| *Peers* |  |  |  |  |
| Troubled peers | 42 / 121 (34.71) | 12 / 94 (12.77) | 3.63\*\*\* | 1.78-7.40 |
| *School* |  |  |  |  |
| Low school bonding | 21 / 57 (36.84)  | 34 / 162 (20.99) | 2.20\* | 1.14-4.24 |
| Poor school ability | 27 / 76 (35.53) | 23 / 121 (19.01) | 2.35\* | 1.22-4.51 |
| Low school aspirations  | 30 / 97 (30.93) | 23 / 116 (19.83) | 1.81 | 0.97-3.39 |
| *Community* |  |  |  |  |
| Knowing few neighbours | 16 / 86 (18.60) | 39 / 133 (29.32) | 0.55 | 0.29-1.06 |
| \*\*\*p<.001, \*\*p<.01, \*p<.05 |
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| Table 3. Adjusted relationships between risk factors and female serious delinquency |
| **Risk Factor** | **OR** | **95% CI** |
| High risk taking | 3.95\* | 1.09-14.25 |
| Uninhibited beliefs | 1.59 | 0.35-7.36 |
| Low loss of face | 0.99 | 0.21-4.78 |
| Low social desirability | 2.62 | 0.74-9.28 |
| Paternal low monitoring | 1.43 | 0.44-4.58 |
| Mother not working | 0.37 | 0.09-1.57 |
| Maternal low monitoring | 3.33 | 0.81-13.60 |
| Troubled peers | 5.40\* | 1.30-22.50 |
| Low school bonding | 1.19 | 0.34-4.22 |
| Poor school ability | 2.00 | 0.62-6.48 |
| \*\*\*p<.001, \*\*p<.01, \*p<.05 |

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| Table 4. Identifying whether risk factor is also a promotive factor |
|  | Type of effect |
| Risk | Promotive |
| **Variable** | OR | 95% CI | OR | 95% CI |
| Risk taking | 12.89\*\*\* | 2.71-61.18 | 0.22\*\* | 0.09-0.52 |
| Uninhibited beliefs | 1.00 | -- | 0.55 | 0.29-1.04 |
| Loss of face | 6.00\* | 1.41-25.62 | 0.56 | 0.28-1.14 |
| Social desirability | 1.57 | 0.77-3.17 | 0.77 | 0.29-2.06 |
| Paternal monitoring | 1.49 | 0.59-3.78 | 1.31 | 0.47-3.65 |
| Maternal monitoring | 5.77\*\* | 1.60-20.76 | 0.64 | 0.32-1.27 |
| Peers | 6.86\*\*\* | 2.44-19.27 | 1.11 | 0.37-3.38 |
| School bonding | 2.11 | 0.70-6.32 | 1.00 | 0.47-2.11 |
| School ability | 2.34\* | 1.19-4.61 | 0.98 | 0.26-3.77 |
| \*\*\*p<.001, \*\*p<.01, \*p<.05 |

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| Table 5. Comparison of significant risk factors for serious delinquency between genders (n=856) |
| **Risk Factor** | **Females (n=219)** | **Males (n=637)** | **Difference in strength (Z)1** |
|  | OR | SE | OR | SE |  |
| High risk taking | 5.42 \*\*\* | 1.91 | 4.50\*\*\* | 0.89 | 0.09 |
| Uninhibited beliefs | 2.61 \*\* | 0.89 | 1.95\*\* | 0.38 | 0.30 |
| Low loss of face | 2.53 \*\* | 0.86 | 1.81 \*\* | 0.34 | 0.36 |
| Low social desirability | 2.09 \* | 0.68 | 1.84 \*\* | 0.36 | 0.17 |
| No father | 2.31 \* | 0.90 | 0.92  | 0.26 | 0.98 |
| Paternal low monitoring | 2.68 \*\* | 1.01 | 1.62  | 0.43 | 0.46 |
| Maternal low monitoring | 3.67 \*\*\* | 1.32 | 2.88 \*\*\* | 0.59 | 0.35 |
| Mother not working | 0.30 \* | 0.14 | 1.04  | 0.23 | -4.62\*\*\* |
| Troubled peers | 3.63 \*\*\* | 1.32 | 9.69 \*\*\* | 3.29 | -0.28 |
| Low school bonding | 2.20 \* | 0.74 | 1.70 \* | 0.35 | 0.32 |
| Poor school ability | 2.35 \* | 0.78 | 1.80 \*\* | 0.35 | 0.31 |
| \*\*\*p<.001, \*\*p<.01, \*p<.051 z = ( ln(OR1) – ln(OR2) ) / pooled SE |

1. 22 were excluded because 4 did not report their gender and 18 did not respond to all the delinquency and deviance items. [↑](#footnote-ref-1)
2. The seriousness scale is rated as follows: personal attack: 13.21 (picking a fight with someone, hurting someone in a fight); motor vehicle theft: 6.70 (taking a bicycle/scooter/motorbike for a ride without the owner’s permission); burglary: 6.43 (breaking into a house, store, school or other building without the owner's permission); common theft: 5.07 (taking parents’ money without permission); shoplifting: 2.20 (shoplifting); vandalism: 1.80 (drawing graffiti on buildings or other property); public mischief: 0.70 (smoking cigarettes, running away from home, pachinko, staying out somewhere other than home) [↑](#footnote-ref-2)
3. The categories were scored as none=1, one to two times=1, three or more times=2. [↑](#footnote-ref-3)