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ORIGINAL PAPER

Lifestyles, Informal Controls, and Youth Victimization Risk in South Korea and the United States

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Abstract Support has been offered for the relevance of daily activities and pro-social networks for shaping victimization odds among adolescents, but cross-cultural analyses of these effects have yet to be examined. The study presented here examined victimization among middle- and high school students from SK ($n = 3343$) and the US ($n = 4990$). Personal victimizations (bullying, physical assaults, and threats) were examined. Youth activities included participation in sports, school clubs, non-school clubs, and employment in part-time jobs. A youth's perceptions of friends and of teachers' attachments to students were also examined, possibly influencing guardianship and vulnerability to victimization. Findings revealed inverse effects of school athletics and positive effects of non-school club participation and part-time jobs on victimization risks in both countries. Perceptions of stronger attachments to friends and between teachers and students were also associated with lower victimization risks in the US. Common themes in findings across the two countries are identified but with important caveats regarding our inability to make direct comparisons in model estimates between the samples. Nonetheless, these themes should help guide hypotheses in future research capable of making direct comparisons.

Keywords Youth victimization · Bullying · Lifestyle/routine activities · Informal controls

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Introduction

Despite the growth in victimology studies over the past 10 years focusing on cultures aside from the US, in part a response to calls for related research (e.g., LaFree 2003), there remains a dearth of cross-cultural assessments of victimology theories. Critical to our understanding of the etiology of victimization is examination of possible influences on risk in different countries, such as SK relative to the US, to assess the generalizability of existing theories as well as the crime prevention strategies linked to these general theories.

The risk of personal victimization among juveniles is particularly important to understand considering how juveniles who have been violently victimized are at higher risk of anxiety, depression, and suicide (Hodges and Perry 1999; McLaughlin et al. 2009; Olweus 1978; Riittakerttu et al. 2010; Unnever and Cornell 2003; Wolke et al. 2012), as well as poor academic performance (Ringwalt et al. 2003) and violent offending (MacMillan and Hagan 2004). Personal victimizations common to youths in both western and eastern cultures include bullying, physical assaults, and verbal threats (Koo et al. 2008; MacMillan and Hagan 2004; McLaughlin et al. 2009; Noh 2007; Olweus 1993; Riittakerttu et al. 2010; Unnever and Cornell 2003).Victimization hereafter refers to an individual's prevalence of victimization or whether s/he experienced a victimization as opposed to an individual's incidence of victimization or the number of victimizations experienced.

According to lifestyle theory, an individual's daily activities operate indirectly on their victimization risk based on how these activities increase or decrease the person's exposure to situations conducive to victimization (Hindelang et al. 1978). Exposure to potential offenders and high-risk situations constitute the proximate effects on

victimization, and this is the underlying structural process that generates significant empirical relationships between certain activities and the odds of victimization. Victimization may be explained by activities that place potential targets in situations which increase their vulnerability and allow offenders to be successful in their pursuits. In their introduction of routine activities theory, Cohen and Felson (1979) argued that the odds of victimization are shaped by the convergence in space and time of a motivated offender, a suitable target, and the absence of a guardian capable of preventing the crime. The presence of motivated offenders is assumed to be fairly constant, so convergence is influenced primarily by individuals' activities and levels of guardianship that shape their vulnerability to victimization. A lifestyle/routine activities perspective seems applicable to juvenile victimization given the variation in daily activities at or outside of school that vary in both structure and levels of supervision, potentially influencing the risk of being violently victimized (e.g., Peguero 2009). Ample support has been offered for the relevance of a LRA perspective to an understanding of juvenile victimization, but primarily in the US (e.g., Briddell and Osgood 2006; Gottfredson and Soulé 2005; Haynie and Osgood 2005; Osgood et al. 2005; Pettit et al. 1999; Peguero 2009).

School activities per se (e.g., student government, school clubs) necessarily have higher levels of adult supervision compared to activities outside of school such as community volunteer groups (Astor et al. 1999; Crowe 1990). Greater involvement in school activities could reduce victimization both during and after school hours since these activities are supervised by adults (in school) while also serving to reduce time spent outside of school in potentially less structured and less well-supervised activities. However, there are some activities that might increase victimization risk while at school, such as school athletics (Mustaine and Tewksbury 2002; Schreck and Fisher 2004). Lauritsen et al. (1992) argued that involvement in certain types of conventional activities may increase opportunities for victimization. For juveniles, this may depend on levels of adult supervision over such activities.

A youth's involvement in part-time work might reduce victimization risk if part-time jobs are more structured and better supervised compared to other out-of-school activities that might increase a youth's exposure to motivated offenders in the absence of capable guardians. On the other hand, the impact of a job on victimization risk might depend on the nature of the actual jobs involved, where factors such as night work, travel to and from work, and the collection of youths in certain types of work environments with inadequate adult supervision may contribute to higher odds of violent victimization (Tobler et al. 2000). An empirical link between part-time jobs and youth victimization has not been examined in the US, although teens with jobs might be *more* likely to engage in delinquency (reviewed by Tobler et al. 2000; cf. Paternoster et al. 2003).

Aside from the relevance of daily activities, a juvenile's vulnerability to victimization might also be shaped by his or her social network whereby members of the network are more or less vested in the welfare of the individual, possibly enhancing or inhibiting guardianship over that person. Applying Hirschi's (1969) concept of social bond to an understanding of victimization risk, Felson (1986) argued that the strength of an individual's attachment (emotional closeness) to conventional others might influence victimization risk if stronger attachments result in more time spent with those who care about the individual, thereby enhancing guardianship and reducing target vulnerability. Pertinent to this idea, Schreck and Fisher (2004) found that pro-social attachments to school, parents, and peers were inversely related to the odds of a juvenile's victimization at school. Wilcox et al. (2006) also found inverse relationships between students' victimization risk and their favorableness towards school and teachers (see also George and Thomas 2000). Teachers with stronger emotional connections to students may act as capable guardians against personal victimization during school hours through greater vigilance (Olweus 1992, 1994). There is some evidence to suggest that the police and security staff are less effective than teachers for providing effective supervision over students in the US (Astor et al.1999; Schreck et al. 2003). However, Rodkin and Hodges (2003) found that empirical links between a youth's risk of victimization in the US and teachers' attitudes toward bullying, their moral authority, and their (un)willingness to intervene in related incidents are weak.

Whereas the role of teachers is limited to school hours, peer relationships are potentially relevant to preventing victimizations in and outside of school. Juveniles with closer ties to peers may be more insulated from harm if these youths are more likely to watch out for one another, although this is not a direct reflection of guardianship per se. Research on youth victimization in western countries has revealed that loners, or juveniles without companions, may be more susceptible to bullying victimization both in and outside of school (Farrington 1993; Hodges and Perry 1999; Nansel et al. 2001; Pellegrini et al. 1999; Scholte et al. 2007; Sweeting et al. 2006), suggesting that attachment to peers might also be relevant from the standpoint of guardianship. On the other hand, the existence of delinquent peers in a juvenile's social network can increase victimization risk by increasing exposure to motivated offenders (Posick 2013; Schreck and Fisher 2004). Moreover, if delinquents are generally more impulsive and selfish than non-delinquents (Gottfredson and Hirschi, 1990), then delinquents are less inclined to have the foresight and to expend the energy in protecting others in their social network.

Considering the more prevalent forms of youth victimization, common definitions of bullying are rarer compared to definitions of assaults or threats. Olweus (1993) defined a victim of bullying as "a student (who) is … exposed, repeatedly and over time, to negative actions on the part of one or more other students" (Olweus 1993: p. 9). Bullying can be direct (overt), involving physical abuse and/or verbal abuse, or it can be indirect (covert), involving rumors and deliberate exclusions from groups (Olweus 1993, 2003). Victimization by bullying is fairly common among juveniles in the US, where 28 percent of youths between the ages of 12 and 18 were subjected to some form of bullying at school in 2011 (Robers et al. 2013). The magnitude of bullying is also relatively high in other countries although estimates are not as dramatic (e.g., Olweus 2003). Estimates of bullying victimization in SK were virtually non-existent until the 2000s amidst growing public concerns over the psychological and social consequences of bullying for young victims (Koo et al. 2008). Estimates of offending appear to be higher than those for victimization, with examples of the latter ranging from 5.3 percent (Yang et al. 2006) to 14 percent (Kim et al. 2004).

When assessing possible differences in youth victimization risk between SK and the US, it is important to recognize that SK high school students spend more time in educational activities compared to the US due to greater competition for getting into college (Hu 2015). As such, it is not uncommon to attend public school followed by private lessons in math, science, or foreign languages in SK, with many youths spending up to 14 h per day in education-related activities (Hu 2015). This aspect of Korean culture is consistent with a generally devout work ethic among adults, and it is not uncommon for an adult to work 10–12 h per day (Olson 2008; see also Rampell 2010). However, youths in both SK and the US maintain similar interests in popular culture and related activities (Shim 2006) although SK youths probably have less time to spend, on average, in these pastimes based on more time spent in academic education. SK culture is generally more conservative than in the US, with people relating to each other based on their status or position as opposed to relatively more egalitarian social interactions in the US (Kim 2002). On the other hand, despite a more conservative culture overall, SK residents seem generally more accommodating in that convenience is preferred over strict rules (Kim 2002).

The limited research on victimization in SK has produced mixed findings for the relevance of activities and guardianship for victimization risk. Park (2003) uncovered evidence that the presence of friends or parents and involvement in group versus individual activities were significant for reducing student victimization at SK universities. Son (2001) found that extracurricular athletics were more successful than individual activities for reducing the risk of being bullied among elementary school students. On the other hand, M. Lee (2003) found that more time spent with friends actually coincided with higher risk of being physically assaulted, but for female students only. Noh (2007) also found a counterintuitive effect of guardianship on physical assaults, but for males only. Contrary to these studies, S.H. Lee (1995) found null effects of guardianship and activities on the risk of physical assaults.

Among those who also studied an individual's exposure/proximity to motivated offenders and more dangerous places, two of the three studies produced significant results in the predicted directions (S.S. Lee 1997; Park 2003; cf. Noh 2007). Finally, although more tangentially related to LRAT, Jung and Park (2010) found that victimization risk was lower among juveniles with more favorable attitudes toward parents. A parallel might be drawn between their analysis of attitudes toward parents and a focus on attachment to teachers, if closer relations to either parents or teachers reflect a greater interest by adults in a youth's welfare.

Failure to identify clear-cut themes that favor or refute the applicability of LRAT to an understanding of victimization risk in SK could merely reflect the limited number of studies conducted in this country. Yet, there is enough evidence in support of related concepts such as structured activities, guardianship, and exposure to more dangerous places to suggest that a LRA perspective may be relevant for understanding youth victimization in SK. However, based on the rarity of studies of LRAT and youth victimization in SK, it would be premature to argue that certain concepts may be more or less relevant for an understanding of victimization risk in SK versus the US.

The analyses described here estimated the effects of daily activities and levels of attachment to both friends and teachers on the odds of being bullied, physically assaulted, and verbally threatened in national samples of middle- and high school students from SK and the US. Each type of victimization was examined separately. Four research hypotheses were tested: The odds of victimization are lower for adolescents (1) involved in a wider variety of extracurricular activities related to athletics, school clubs, and/or non-school clubs (less exposure to motivated offenders), (2) with part-time jobs (less exposure to motivated offenders), (3) with stronger perceptions of teachers' attachments to students (stronger guardianship), and (4) with closer ties to friends (stronger guardianship).

Method

Participants

Data for SK came from the Korean Youth Panel Survey (KYPS). These data were compiled by the National Youth

Policy Institute (NYPI) beginning October 2003. The KYPS sample was drawn using a stratified, multistage cluster design to obtain a representative cross-section of 15-year-olds from SK. Junior high schools were stratified by the 12 regions of SK (including Seoul and 11 other metropolitan areas and provinces), and schools were sampled proportionate to size. Lists of all second-year students, excluding those in accelerated or special needs classes, were compiled from the selected schools. Students were then systematically selected from these lists. Both school and student participation in the study were voluntary.

Data for the US came from the 2007 School Crime Supplement to the National Crime and Victimization Survey (NCVS) administered by the US Census Bureau. The Supplement involves a bi-annual survey of youths aged 12–18. The NCVS involves annual surveys of individuals aged 12 and up included in national samples of households across the US, excluding Alaska and Hawaii. The School Crime Supplement is administered every other year to youths aged 12–18 who were included in that year's national sample and who attended any school during the previous academic year. A total of 11,161 adolescents were included in the 2007 sample, but only 5621 adolescents attended school the previous year *and* agreed to participate in the survey.

Procedure

Students in the first wave of the Korean study were examined. The analysis was limited to one wave because similar panel data were not available for the US. Sample weights were applied to the SK sample to adjust for the unequal sampling probabilities at both the regional and school levels. Survey data were obtained from both the sampled students and their parents, with parents surveyed by phone. The surveys produced information for a sample of 3449 adolescents aged 15. Survey data without missing information on any of the study variables were available for 3343 adolescents, primarily due to a lower reporting rate for household income. Little's MCAR test was not statistically significant ($p = .13$), suggesting that the missing data were missing at random. The 106 missing cases were excluded from the analysis.

Of the 5621 adolescents surveyed in the US sample, a total of 4990 youths provided complete information on the study variables. Like the SK sample, most of the cases with missing data were missing on household income and Little's MCAR test was not statistically significant ($p = .07$). The 631 missing cases were excluded from the analysis. As for the analysis of the KYPS data, sample weights were applied to the analysis of the US sample to adjust for unequal selection probabilities.

The present analysis of cross-sectional data for each sample means that the empirical relationships to be described should be treated as correlational rather than causal. This is not to say that any significant relationship is *not* causal, but only that causal inferences cannot be established with the research design because survey data on both victimization and lifestyle experiences were compiled for the same time window. This means that certain victimization experiences could have preceded various lifestyle choices if, for example, youths reported victimizations that occurred prior to obtaining part-time jobs.

Age differences between the two samples necessarily limit comparisons between the findings for SK and the US. Nonetheless, the analyses presented here are still useful for broader inferences regarding the applicability of LRAT to youth in general in either country and for informing more specific predictions for future research on victimization risk in SK and the US. The multivariate models described below were also estimated for 15-year-olds only in the US sample because the SK sample included *only* 15-year-olds. All population estimates for the reduced sample except for attachment to teachers in the model of bullying victimization fell into 95 percent confidence intervals for the corresponding estimates from the full sample of 12- to 18-year-olds.

Measures

Several of the measures of specific concepts differ between the SK and US samples, so direct comparisons of these effects would not be valid. However, a more general comparison of significant versus nonsignificant effects in conjunction with sample-specific interpretations of the magnitude of these effects can still provide important insight into the applicability of particular concepts for understanding youth victimization in each country. Tseloni et al. (2004) conducted one of the few extant cross-cultural studies of LRA theories (LRAT) to date, and their measures of related concepts differed between the countries examined. Still, their study provided great insight into possible differences in the applicability of LRAT to an understanding of household burglaries between England and Wales, the US, and the Netherlands.

All variables for the analysis are described in Tables 1 and 2 for the SK and US samples, respectively. It is important to highlight differences in measures between the two samples because these differences prohibit direct comparisons of empirical estimates.

Outcomes: types of victimization

Binary outcome measures of victimization were examined for both samples. These prevalence measures captured

Table 1 Description of the SK youth sample ($N = 3343$)

Measures	Label	Mean	SD
Outcomes			
Bullied by group of youths or teased by any youth during past year	BULLY	0.12	0.33
Physically assaulted during past year	ASSAULT	0.04	0.20
Threatened with physical harm during past year	THREAT	0.05	0.21
Predictors			
Male	MALE	0.50	0.50
Resident of Seoul	SEOUL	0.17	0.38
# Brothers and sisters	SIBLINGS	1.17	0.63
Average monthly household income (won)	INCOME	300	217
Participates in school athletics	ATHLETICS	0.40	0.49
Participates in school clubs	SCHOOLCLUBS	0.24	0.43
Participates in clubs outside school	OTHERCLUBS	0.04	0.19
Has a job	JOB	0.07	0.25
Attachment to teachers (factor consisting of…)	TEACHERS	0.00	1.00
I can talk about all my troubles and worries to my teachers without reservation (1 = very untrue; 5 = very true)	–	2.18	0.99
Teachers treat me with love and affection	–	2.75	1.00
I hope to become a person just like my teacher	–	2.45	1.13
Attachment to friends (factor consisting of…)	FRIENDS	0.00	1.00
I hope to maintain close relationships with my friends for a long time (1 = very untrue; 5 = very true)	–	4.38	0.73
I am happy whenever I get together with them	–	4.35	0.69
I try to share my thoughts and feelings with them	–	3.71	0.94
We can talk frankly about our troubles and worries	–	3.78	1.03
One or more friends has committed crimes	DELPEERS	0.21	0.41

Note: Measures dummy coded (0 = no; 1 = yes) except SIBLINGS, INCOME, TEACHERS, and FRIENDS

whether a youth was victimized at least once during the year preceding each survey. Separate measures were created to capture victimization by (a) bullying, (b) physical assault, and (c) threats. The first two types of victimization were defined differently between the two samples. The question specific to bullying in the SK survey asked about victimizations by groups of individuals. However, another survey question asked about incidents of being teased by individual youths. Since teasing by peers was also treated as a type of bullying in the US survey, we included both teasing and collective bullying in the measure of whether a SK youth was bullied during the study period. Bullying incidents were defined more broadly in the US survey, including bullying by either groups or individuals. The School Supplement to the NCVS also listed specific incidents of bullying (see Table 2) whereas the KYPS referred only to collective bullying, as mentioned above. Regarding physical assaults, the KYPS asked only about beatings during the previous year whereas the School Supplement to the NCVS asked specifically about seven different forms of assault. These between-country differences in the survey questions capturing bullying and assaults could have led to an underreporting of both types of victimization in the SK sample. Although both surveys asked about the numbers of these incidents, prevalence measures were examined because of these different definitions. Different definitions could still generate different findings across samples for the binary outcomes, all else being equal, but prevalence measures might be considered more similar to each other compared to incidence measures due to the focus on any one incident during a full year. Counts of specific incidents also might be more prone to bias due to variation in recall across respondents. Nonetheless, the between-sample differences in the definitions of bullying and assault might generate differences not only in the prevalence of these types of victimizations but also in the general findings of possible linkages between LRA indicators and victimization risk across the two samples.

Lifestyles

A measure of whether a youth had a job was available in both data sets (available directly in the School Supplement to the NCVS, and derived from the number of hours worked

Table 2 Description of the US youth sample ($N = 4990$)

Measures	Label	Mean	SD
Outcomes			
Bullied during past year (teased, spread rumors about, pushed/shoved/ tripped, destroyed property)	BULLY	0.32	0.47
Physically assaulted during past year (bruises, cuts, teeth chipped/ knocked out, broken bones/internal injuries, unconscious)	ASSAULT	0.02	0.14
Threatened with physical harm during past year	THREAT	0.06	0.23
Predictors			
Male	MALE	0.52	0.50
Age	AGE	14.78	1.84
Nonwhite	NONWHITE	0.22	0.41
Population size			
<10,000 (reference group)	POP1	0.47	0.50
10,000–49,999	POP2	0.21	0.41
50,000–99,999	POP3	0.10	0.29
100,000–249,999	POP4	0.09	0.29
250,000–499,999	POP5	0.04	0.18
500,000–999,999	POP6	0.04	0.19
1 million–<2.5 million	POP7	0.02	0.15
2.5 million–<5 million	POP8	0.02	0.13
≥5 million	POP9	0.02	0.14
# Household members	HOUSEMEM	4.24	1.28
Annual household income (1 = <$5000; 10 = $75,000>)			
<$10,000 (reference group)	INC1	0.05	0.21
$10,000–$19,999	INC2	0.08	0.27
$20,000–$29,999	INC3	0.09	0.29
$30,000–$39,999	INC4	0.11	0.31
$40,000–$49,999	INC5	0.11	0.32
$50,000–$74,999	INC6	0.19	0.39
≥$75,000	INC7	0.37	0.48
Participates in school athletics	ATHLETICS	0.41	0.49
Participates in school clubs	SCHOOLCLUBS	0.32	0.47
Participates in clubs outside school	OTHERCLUBS	0.37	0.48
Has a job	JOB	0.13	0.34
Attachment to teachers (factor consisting of…)	TEACHERS	0.00	1.00
Teachers treat students with respect (0 = disagree; 1 = agree)	–	0.94	0.23
Teachers care about students	–	0.92	0.26
Attachment to friends (factor consisting of…)	FRIENDS	0.00	1.00
I have friends at school to talk to (0 = disagree; 1 = agree)	–	0.97	0.18
I have friends at school who help me with my problems	–	0.95	0.21

Note: Measures dummy coded (0 = no; 1 = yes) except HOUSEMEM, INCOME, TEACHERS, and FRIENDS.

at a job during the previous week in the KYPS). Both surveys asked about different types of extra-curricular activities these youths were engaged in at the time of study, allowing separate prevalence measures of participation in (a) school athletics, (b) school clubs, and (c) clubs outside of school. However, the School Supplement to the NCVS asked about more specific school-related and non-school activities compared to the KYPS, such as service clubs and the arts, potentially contributing to the appearance of a higher level of these activities in the US sample.

Attachments

The scales of attachment to teachers and friends were created with different types and numbers of survey items between the two samples. For the SK sample, the existence

of Likert scales in conjunction with the use of more than two survey items for each scale (see Table 1) permitted the creation of two factors using principal components analysis (PCA). Alpha reliabilities for the teacher attachment and the friend attachment items were .70 and .72, respectively. Each PCA produced a single factor accounting for over 60 percent of the variance within each set of survey items. These scales were more limited in the US due to the focus on two dichotomous items per scale (see Table 2). These items prohibited the use of principal components analysis, so the items were summed within each pair and the summed scales were standardized to a mean of 0 and a standard deviation of 1.00. This was done to examine numerical scales similar to the factors created for the SK sample, which were automatically standardized through PCA.

To determine whether any between-sample differences in findings for teacher attachment and friend attachment might be attributed to the use of PCA versus summed scales, the survey items for the SK sample were also summed and examined. The Pearson correlation (r) between the sum of items for teacher attachment and the corresponding factor derived from PCA was 0.992, and the correlation between the sum of items for friend attachment and the PCA factor was 0.999. A model with the summed scales produced the same substantive results for statistical significance and magnitude as the model with the PCA factors.

Demographics

Several control variables were included in the analyses to improve model specifications, following the recommendations of Hindelang et al. (1978) and Cohen et al. (1981). The analysis of both samples included statistical controls for a youth's sex, household income, household size, and size of residential area. Only the analysis of the US sample included controls for a youth's age and race/ethnicity because the SK sample included only 15-year-olds, and because of the (relatively) homogeneous racial make-up of the country's youth population.

Household size was measured as total number of other household members aside from the youth for the US sample, and as the total number of a youth's siblings living in the same household for the SK sample. Household income in SK was measured as average monthly household income versus an ordinal scale of annual household income in the US, ranging from less than $5000 to $75,000 or more. The ordinal scale was transformed into a series of dummy variables due to potential biases associated with including ordinal scales as independent variables in regression models (Fox 2016).

Regarding indicators of size of the youth's residential area, information on each youth's city or region of residence was available for SK. We explored a series of dichotomous variables distinguishing each urban area from all other areas in the country. The only significant predictor of any form of victimization was a measure distinguishing between residents of Seoul and all other residents. Seoul is, by far, the most populated and dense urban area of SK. By contrast, place size in the US was measured as an ordinal scale ranging from the most rural areas to populations of 5 million or more. As for the ordinal income scale, the population scale was converted into a series of dummy variables for inclusion in the multivariate models.

Delinquent peers

Following the earlier discussion of delinquent friends and risk of victimization, only the SK survey included questions about delinquent peers and so we could only explore its relevance for the analysis of SK youths. Nonetheless, models with and without a measure of whether a youth had delinquent friends were estimated and compared. Inclusion of the measure did not alter the statistical significance and magnitude of any other independent variable in those models. The regression coefficients from one set of models fell into 95 percent confidence intervals for the corresponding coefficients in the other set. The SK models with the measure of delinquent peers included are presented here because those models might be considered more properly specified.

Data Analyses

Binary logistic regression was used to estimate the models of victimization prevalence. As demonstrated by Greenland et al. (2000), with additional insights provided by King and Zeng (2001), small numbers of rare events can generate biased ML estimates with logistic regression. The proportion of rare events relative to the entire sample is not the problem, but rather the raw numbers of these events due to small sample bias (Greenland et al. 2000). The numbers of rare events in the data examined here might be considered small, such as 138 assaults in the SK sample, so the Rare Event Logistic Regression download package for Stata (Tomz et al. 1999) was used. The procedure is very similar to penalized likelihood and the Firth method available in SAS. Penalized likelihood and similar methods can also be used for data without small numbers of rare events.

Results

A review of the univariate descriptive statistics displayed in Tables 1 and 2 is important for highlighting the need to be cautious when comparing results between the two samples. The different survey items for each sample could have

contributed to differences in the distributions of the measures, even aside from those that might be attributable to cross-cultural differences in lifestyles and daily routines. The distributions of victimization outcomes, for example, differ between the samples although the magnitude of each difference depends on the type of victimization. The prevalence of physical assaults and threats were closer between the two samples, with 2–4 percent victimized by assaults and 5–6 percent victimized by threats in each sample relative to the prevalence of bullying. The difference in the definition of bullying was more striking between the two samples, and this may have generated the dramatic difference in prevalence of 12 percent of SK youths versus 32 percent of American youths.

The two samples were comparable in the percentages of males, with 50 percent for SK and 52 percent for the US, and a mean age of roughly 15 years for the US whereas all SK youths were 15 years old. There were 22 percent non-white youths in the US sample, but the SK sample was homogeneous on race/ethnicity. Paid work was more common in the US sample, with 13 percent holding jobs at the time of the survey versus 7 percent of the SK sample. Levels of participation in school athletics were comparable in both samples, including 40 percent of SK youths and 41 percent US youths, but participation in both school clubs and non-school clubs appears higher in the US sample. The definitions of both school and non-school clubs were broader in the US survey.

Differences in both the survey questions and the scales used to tap levels of attachment to teachers and friends also prohibited direct comparisons of these distributions across samples, although mean values on the individual items indicate that majorities of both SK and US youths expressed favorable attitudes toward friends. Perceptions of teachers appeared more favorable in the US sample, on average, relative to the SK sample.

Correlates to Victimization Risk in South Korea

The logistic regression models predicting each type of victimization for the SK sample are displayed in Table 3. Regarding the findings for the activity measures, participation in clubs outside of school was associated with higher odds of bullying, assaults, and threats. Similarly, having a part-time job was linked to higher odds of bullying and threats. On the other hand, youths involved in athletics were significantly less likely to be physically assaulted. Participation in school clubs was not significantly related to any of the victimization types examined. The findings for extracurricular activities overall failed to support the general prediction that involvement in these activities would reduce victimization risk for SK youths, except for school athletics and the risk of assault. The positive empirical relationships involving non-school clubs and employment raise the possibility that the environments in which these activities occur may generate opportunities for certain forms of violence.

Teacher attachment was significantly related to the odds of assault victimizations only, where SK youths who perceived teachers as more attached to students were less likely to be assaulted. Although not related to being bullied or threatened, this finding is consistent with the idea that youths who perceive teachers as more detached from students may be less effectively supervised and insulated from physical victimizations by other students. By contrast,

Table 3 Rare event logistic regression models of youth victimization in South Korea

	BULLY			ASSAULT			THREAT		
Predictors	b	$s.e._b$	e^b	b	$s.e._b$	e^b	b	$s.e._b$	e^b
Intercept	−2.18			−4.07			−4.06		
MALE	0.21*	0.11	1.24	0.98**	0.20	2.66	1.01**	0.20	2.76
SEOUL	0.04	0.14	1.04	−0.21	0.24	0.82	0.33*	0.20	1.40
SIBLINGS	0.02	0.09	1.02	0.24*	0.14	1.27	−0.05	0.14	0.96
INCOME	−0.001*	0.00	0.99	−0.001*	0.00	0.99	0.00	0.00	1.00
ATHLETICS	0.02	0.11	1.02	−0.38*	0.19	0.68	0.26	0.17	1.30
SCHOOLCLUBS	0.17	0.12	1.18	0.18	0.20	1.20	0.25	0.19	1.29
OTHERCLUBS	0.66**	0.24	1.93	0.90*	0.38	2.46	0.67*	0.37	1.95
JOB	0.63**	0.18	1.87	0.16	0.32	1.17	0.67**	0.26	1.96
TEACHERS	−0.07	0.06	0.93	−0.25**	0.09	0.78	0.07	0.08	1.08
FRIENDS	−0.06	0.05	0.94	−0.08	0.08	0.93	−0.05	0.08	0.95
DELPEERS	0.37**	0.12	1.45	1.34**	0.18	3.84	0.59**	0.18	1.80
Pseudo R^2	0.06			0.11			0.06		
% Cases classified correctly on outcome	95.3			95.7			95.4		

Note: *$p \leq .05$; **$p \leq .01$

results for attachment to friends were not significant in any of the models. Weaker ties to peers did not correspond with higher victimization risk in SK.

Findings for the statistical controls, although not of primary interest, are also worth noting to underscore their relevance for future studies of the topic. Boys were significantly more likely than girls to be bullied, physically assaulted, and threatened. Residents of Seoul, on the other hand, did not face higher risks of being victimized by any of these types of victimization relative to residents of any other region or city. The proxy of household size, number of siblings, maintained a positive effect on the risk of assault and was a nonsignificant predictor of bullying and threats, which counter the idea that more siblings might reduce victimization risk through greater guardianship. Household income was a significant predictor of bullying and threats, where youths from households with higher incomes were less likely to be victimized. Finally, youths with one or more delinquent friends were at higher risk of all three types of victimization. The change in the odds ratio e^b reveals that this was the strongest predictor of victimization in the model of assaults.

Correlates to Victimization Risk in the United States

Findings from the analyses of victimization risk among US youths are displayed in Table 4. Participation in school athletics was inversely related to the risk of assault and threat victimizations, and the finding for assault is similar to the significant result for the SK sample. Also like the previous analysis, these relationships were the only estimates consistent with the general prediction of lower victimization risk for youths engaged in more structured activities. By contrast, participation in school clubs and non-school clubs

Table 4 Rare event logistic regression models of youth victimization in the US

	BULLY			ASSAULT			THREAT		
Predictors	*b*	$s.e._b$	e^b	*b*	$s.e._b$	e^b	*b*	$s.e._b$	e^b
Intercept	1.89			−1.38			−0.34		
MALE	0.01	0.07	1.01	0.08	0.24	1.08	0.11	0.14	1.12
AGE	−0.17**	0.02	0.84	−0.26**	0.08	0.77	−0.15**	0.04	0.86
NONWHITE	−0.25**	0.09	0.78	−0.50	0.31	0.60	−0.28	0.17	0.75
POPULATION									
POP2	0.12	0.09	1.13	−0.50	0.33	0.61	0.06	0.17	1.06
POP3	−0.15	0.12	0.86	−0.12	0.38	0.88	−0.17	0.24	0.85
POP4	0.17	0.12	1.19	−0.56	0.47	0.57	−0.15	0.25	0.86
POP5	−0.22	0.19	0.81	−0.09	0.58	0.92	−0.39	0.41	0.68
POP6	0.17	0.17	1.18	−0.85	0.80	0.43	−1.02*	0.48	0.36
POP7	−0.12	0.25	0.88	0.27	0.65	1.31	0.14	0.44	1.15
POP8	−0.88*	0.36	0.41	–	–	–	−0.50	0.66	0.61
POP9	−0.75*	0.31	0.47	0.24	0.70	1.28	0.00	0.47	1.00
HOUSEMEM	−0.03	0.03	0.97	0.06	0.09	1.06	−0.05	0.05	0.95
INCOME									
INC2	−0.06	0.19	0.94	1.48*	0.86	4.37	0.26	0.35	1.30
INC3	−0.30	0.19	0.74	1.55*	0.85	4.69	−0.05	0.35	0.95
INC4	−0.04	0.18	0.96	0.96	0.88	2.60	0.11	0.34	1.11
INC5	−0.14	0.18	0.87	1.42*	0.86	4.12	0.05	0.35	1.05
INC6	−0.12	0.17	0.88	1.29	0.84	3.62	0.21	0.32	1.24
INC7	−0.23	0.17	0.79	0.88	0.84	2.41	−0.42	0.32	0.65
ATHLETICS	−0.05	0.07	0.95	−0.45*	0.25	0.64	−0.33*	0.15	0.72
SCHOOLCLUBS	0.17*	0.08	1.18	0.38	0.25	1.47	−0.09	0.16	0.91
OTHERCLUBS	0.38**	0.07	1.46	−0.32	0.26	0.73	−0.03	0.15	0.97
JOB	0.40**	0.11	1.49	0.23	0.45	1.26	0.49*	0.23	1.64
TEACHERS	−0.34**	0.03	0.71	−0.35**	0.07	0.70	−0.46**	0.04	0.63
FRIENDS	−0.18**	0.03	0.84	−0.19**	0.07	0.83	−0.10*	0.05	0.90
Pseudo R^2	0.09			0.10			0.10		
% cases classified correctly on outcome	77.0			98.1			94.3		

Note: $*p \leq .05$; $**p \leq .01$

in addition to having a part-time job corresponded with higher odds of being bullied. Part-time jobs also coincided with higher odds of being threatened although club activities were not significant in the models of either threats or assaults. Recall the significantly higher odds of being bullied among SK youths who participated in non-school clubs or had part-time jobs, as well as the higher risk for being threatened among non-school club members. When considered together, the findings for both samples provide a compelling argument that these types of activities may enhance the risk of being bullied whereas school athletics may help to reduce the odds of other forms of violent victimization.

By contrast, the odds of each type of victimization were significantly higher for juveniles who perceived teachers as less attached to students. These results favor the third hypothesis and suggest that youths who perceive teachers as more detached from students may be less effectively supervised and insulated from physical victimizations by other students, at least during school hours.

Results for attachment to friends were also robust across all three models, where youths in the US with weaker ties to their friends were more likely to experience bullying, assaults, and threats. These findings support the fourth hypothesis and, in conjunction with the results for teacher attachment, suggest that both teachers and friends may help to reduce the risk of certain forms of violent victimization among youths in the US. These findings stand in stark contrast to the predominantly null findings for the attachment scales in the SK sample, although these differences could be attributable in part to the different items included in each scale between the two samples.

Turning to the statistical controls, a youth's gender was irrelevant for predicting violent victimization, unlike the significant estimates in all three models for the SK sample. Younger adolescents were more likely to be bullied, assaulted, and threatened, and nonwhite youth were less likely to be bullied. Although counterintuitive, bullying was also less common among youths residing in larger populations. By contrast, youths residing in households with lower incomes were more likely to be physically assaulted. Finally, household size was a nonsignificant predictor of all three types of victimization.

Discussion

The findings of higher victimization risks for youths who participate in non-school clubs, including bullying, assaults, and threats in SK and bullying in the US, are consistent with research in SK (M. Lee 2003) and in the US (Mustaine and Tewksbury 2002; Schreck and Fisher 2004). These findings counter the argument that club activities might reduce opportunities for victimization by providing youths with more structured pastimes for participation (Peguero, 2009). However, the findings for school athletics in both countries indicated lower risks for students who participated in school sports, including assaults in SK and assaults and threats in the US, which are compatible with LRAT. Son's (2001) study of SK youths revealed a lower risk of bullying among students who engaged in school athletics, although there was no significant link between school athletics and bullying found here. The findings for athletics and non-school clubs beg the question of why different types of structured activities might produce opposite effects on victimization risk among youths in either country.

Structured activities for youths may be more or less effective for reducing victimization risk depending on levels of adult supervision over such activities, not to mention the quality of the supervision. School athletics are supervised by faculty who have a vested interest in the students' welfare after school hours and on weekends (Astor et al. 1999; Crowe 1990). Non-school clubs, such as those focused on volunteer work, may have no direct adult supervision or may be supervised by adults or even older teens who are not as cautious about the well-being of participants. Non-school clubs also operate in the community where it is more difficult to monitor the behaviors of all participants. Weaker supervision in a community as opposed to a school setting could increase a youth's exposure to risky situations. For example, a popular after-school activity in SK involves participation in cyber clubs, somewhat akin to coffee houses in the US except for the publicly available technology. Cyber clubs exist off school premises and can be crowded and noisy. Therefore, participation in these clubs may increase the risk of verbal and physical confrontations with others. From a LRA perspective, a youth's attendance in cyber clubs might fit better from the standpoint of greater exposure to more dangerous places and proximity to motivated offenders. In short, differences between school athletics and non-school clubs in both levels of supervision and the environments in which activities take place might generate opposite effects on victimization risk, as displayed in both samples.

Like the results for non-school club participation, the findings of higher victimization risks for youths with jobs could reflect a greater exposure to risky situations in particular job environments. These findings are consistent with some delinquency research from the US regarding greater involvement in delinquency among teens with jobs (Tobler et al. 2000; cf. Paternoster et al. 2003). Although much of this may be tied to the nature of the actual jobs, factors such as night work, travel to and from a job, and the collection of adolescents in a work environment with inadequate adult supervision and fewer capable guardians may contribute to higher odds of bullying and other verbal threats, as found in both samples.

Perceptions of stronger attachments to friends and between teachers and students were also associated with lower victimization risks in the US. The overwhelmingly null findings for SK could reflect the different survey items used to create the attachment scales as well as the outcome measures, although the null effects could also indicate that these factors are less salient for shaping the odds of victimization among SK youths. Findings for the US are consistent with Schreck and Fisher (2004), who found that prosocial attachments to school and peers were inversely related to the odds of a juvenile's victimization at school. The significant link between teacher attachment to students and the odds of being bullied is also consistent with Olweus' (1992, 1994) argument that stronger emotional connections between teachers and students might be important for reducing a youth's risk for being bullied if teachers with stronger ties to students are more likely to act as capable guardians during school hours. Empirical evidence from the US and other western countries also suggests that juveniles without companions may be more susceptible to bullying victimization both in and outside of school (Farrington 1993; Hodges and Perry 1999; Nansel et al. 2001; Pellegrini et al. 1999; Scholte et al. 2007; Sweeting et al. 2006), implying that attachment to peers might also be relevant from the standpoint of guardianship.

Although household income and size were included in the analyses as statistical controls, some observations about related findings are worth noting. The significant findings of higher odds of assault victimization among both SK and US youths with lower household incomes, in addition to the higher odds of bullying victimization among SK youths underscores the relevance of considering household income in future research. Findings are also compatible with empirical research indicating higher levels of violence in lower income areas (e.g., Buka et al. 2001), although we measured income at the household rather than at the neighborhood level. The household measure might have proxied a neighborhood SES effect. By contrast, the predominantly null effects of household size on victimization risk in both samples, except for the counterintuitive finding of higher odds of assault victimization in larger SK households suggests that household size may not operate as a protective factor for youths. More research is needed for a more reliable claim. Originally, it was expected that household size would be important for SK youths. Rohner and Pettengill (1985) described how "…the individual in Korea is viewed as a fractional part of a more significant whole—the family. All members of the Korean family are responsible for the protection and promotion of the family's welfare" (p. 524). Kim and Hoppe-Graff (2001) provided a similar yet more recent discussion of the importance of family cohesiveness and stability to SK residents and the continued influence of traditional Confucian values despite the country's modernization during the last decades of the 20th century. These observations raise the possibility that family members in SK are inclined to watch out for each other, perhaps more so compared to the US.

Overall, the analysis produced evidence favoring applications of LRAT to an understanding of certain forms of victimization in both SK and the US. The most important findings involved the relevance of school athletics, non-school club participation, part-time jobs, and teachers' attachments to students for predicting certain types of violent victimization in both samples, the irrelevance of school club participation in both samples, and the relevance of attachment to friends in the US sample. Although attachment to friends and teacher/student attachments have not previously been framed within a LRA perspective in related research, they may fit well within this framework given their centrality in the daily social networks of juveniles. On the other hand, extracurricular activities have received much greater attention within a LRA framework in extant studies, yet the breakdown of these activities into athletics, school clubs, and non-school clubs revealed a mix of inverse, null, and positive effects (respectively) on victimization risk in both countries.

Strengths, Limitations and Directions for Future Research

The analysis described here provided a rare examination of possible influences on youth victimization risk in eastern and western cultures, with findings that (a) raise the possibilities of interesting similarities and differences between these cultures, (b) could provide potentially useful discussion points around reducing a youth's risk of victimization in each country if these findings are replicated in future studies, and (c) should inspire additional research to fill the void in cross-cultural assessments of victimology theories and corresponding crime prevention strategies. However, these strengths must be tempered by an inability to examine and compare the effects of identical measures for the SK and US samples. Measure variance could have contributed to some of the differences in statistical significance and magnitude of effects capturing similar concepts (extra-curricular activities, attachment to teachers, and attachment to friends).

Future studies of common measures for both countries might specifically test whether the effect of a youth's attachment to friends is relevant for the US but not for SK, and whether other factors found to be significant in both samples might predict different types of victimization in each country. Cross-national studies of common measures can also assess sample differences in the magnitude of an effect without restricting comparisons to statistical significance. Evidence favoring predictions grounded in these

findings would lend additional support to these ideas and would help to focus discussions on how teachers, for example, might help to reduce assault risks in either country.

Despite the study limitation noted above, there are some general themes that emerged from the findings that potentially reflect similarities and differences in the relevance of key concepts. Identification of these themes will be useful for guiding hypotheses in future related studies that address the shortcomings of this analysis. Similar themes included (a) lower odds of assault victimization for youths who participated in school athletics, (b) null effects of school club participation on all three types of victimization, (c) higher odds of being bullied among youths who participated in non-school clubs, (d) higher odds of being bullied or threatened among those with part-time jobs, and (e) lower risk of assaults among youths who perceived stronger attachments between their teachers and students. Some of these significant relationships also applied to other types of violent victimization depending on the sample. Nonetheless, these similar themes underscore the importance of additional research on the relevance of school athletics, non-school clubs, part-time jobs, and teacher/student attachments for shaping certain forms of violent youth victimization in both eastern and western cultures.

The most noteworthy difference in themes between the two samples involved the significance of attachment to friends in all three models of victimization in the US versus the null findings for SK. It is premature to conclude that attachment to friends somehow matters more in the US for reducing victimization risk among youths, given the differences between samples in the items used to create the scales, and future cross-national research capable of examining the same items might reveal comparable effects on victimization risk in both countries.

The seemingly greater relevance of teachers in the US analysis might be linked to the generally higher means on the teacher items for the US sample relative to the means for the SK sample, which could be tapping into a more general difference in perceptions of a teacher's legitimate authority. Stronger perceptions of teacher authority overall could make teachers more capable guardians in the eyes of individual students if these youths feel more comfortable turning to their teachers for support. Analyses of identical survey items for different samples would provide credible insight into this idea.

The findings presented here also raise a few practical issues for crime prevention strategies that are worthy of exploring in future studies of SK and the US. First, if subsequent research replicates the significant *positive* links between the odds of victimization and involvement in non-school clubs and part-time jobs, this could highlight the importance of more careful assessments of specific environments for safety and proper adult supervision. Studies on the utility of increasing youths' awareness of the higher risks associated with these activities in particular contexts, perhaps with the distribution of informational materials by schools to youths and/or parents, could be worthwhile.

Second, the findings that stronger ties between teachers and students corresponded with significantly lower risks of multiple types of violent victimization in the US and lower risk of assaults in SK reinforces Farrington's (1993) observation regarding the role of teachers in reducing victimization risk during school hours. Evaluation research might focus on the effectiveness of educating students about victimization risk at the beginning of the school year and having teachers meet with victims and their parents to provide suggestions for reducing a child's exposure to higher risk situations.

Finally, some of the study findings are encouraging for additional research on linkages between ties to peers and victimization risk in the US, and on possible benefits of nurturing healthier classroom environments where peer networks are more likely to develop. Although findings for peer attachment in the SK sample were nonsignificant, this idea is consistent with Jung (2003), who suggested that it is important to further examine classroom climates in SK and whether nurturing egalitarian relationships and mutual trust among students might reduce the risk of being bullied. The magnitude of the problem of youth victimization, regardless of culture, in conjunction with the gravity of physical and psychological harms inflicted on juveniles who are violently victimized underscore the potential benefits of research in both countries on activities and quality of relationships that may reduce vulnerability to victimization.

Additional cross-cultural comparisons of youth victimization are clearly needed to validate these findings and to test the relative applicability of LRAT to youth victimization in different cultures. Assessments of the cross-cultural generalizability of victimization theories are also essential for specifying exactly what might be done to reduce the risks of youth victimization in different countries.

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Compliance with Ethical Standards

Conflict of Interest The authors declare that they have no competing interests.

Ethical Compliance The Korean Youth Panel Survey (KYPS) and the National Crime and Victimization Survey (NCVS) are publicly available datasets that do not allow for identification of the participants.

Informed Consent The KYPS and the NCVS are publicly available datasets originally compiled by government agencies that met all standards for the informed consent of all participants.

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