

Cultural contexts of individualism vs. collectivism: Exploring the relationships between family bonding, supervision and deviance

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Abstract

The primary focus of this paper is to test the cross-national generalizability of the relationship between parental attachment and delinquency. Countries were divided on individualistic and collectivistic dimensions. Individualistic countries emphasize the degree to which individuals are supposed to look after themselves whereas collectivist countries emphasize group integration, usually around the family, and the achievement of group over individual goals. Average individual-level associations between parental attachment and crime were examined across 26 nations in an international dataset of delinquency and victimization of 12–15-year-old students in grades 7–9. Low levels of parental attachment and parental supervision were found to be more strongly related to deviance in countries with individualistic as opposed to collectivist cultural orientations. Alternative explanations for this relationship are explored.

Keywords

Attachment, bonding, comparative, deviance, individualism vs. collectivism, international data

Introduction

Family bonding prevents delinquency by providing a supportive environment where adolescents spend time with family members more than with peers (Hoeve et al., 2009; Kierkus and Baer, 2002). The family serves as an important moderator of delinquency, reducing criminogenic factors such as unstructured socializing and susceptibility to deviant peers (Crosnoe et al., 2002; Dong and Krohn, 2016; Griffin et al., 2000). Conversely,

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whereas a strong familial environment and positive parental rearing can inhibit delinquency, a disruptive family environment and negative parental rearing practices can foster criminogenic behavior in adolescents (Sampson and Laub, 1993).

Bonds between parents and children are important to socialize children to group norms and values, but also to reduce victimization (Özbay and Özcan, 2006). First, strong family bonds and positive environments promote family activities that increase monitoring of children and provide incentives to steer clear of potentially dangerous situations such as spending time with delinquent peers and engaging in risky lifestyles (Higgins and Albrecht, 1977). Second, strong family bonds reduce the motivation for offending (Unnever et al., 2006). For example, families that are more cohesive provide the individual with an increased ability to resist the temptation of crime (Hirschi, 2002; Tilley and Sidebottom, 2017).

But the extent to which the family can function as an effective agent of socialization depends on many factors both inside and outside of the immediate family. Such factors include the absence of one parent (Harper and McLanahan, 2004), the socioeconomic status of the family, and the impact of neighborhood disadvantage (Zimmerman and Messner, 2010, 2013). Even community characteristics such as poverty, residents with heterogeneous backgrounds, and a high degree of residential mobility (Sampson and Laub, 1993; Shaw and McKay, 1942) and a low degree of collective efficacy (Sampson and Bean, 2006; Sampson et al., 1997) can operate to counteract even well-meaning and otherwise effective child rearing (Ghazarian and Roche, 2010; Sullivan, 2006; Wasserman et al., 2003)

Despite consistent findings about the role of family as a major source of social control in Western cultures, little attention has been paid to how the effects of family bonding play out in different cultural contexts. There is reason to believe family structure and impact on child rearing may differ among cultures with different values (Junger-Tas, 2012; Minkov and Hofstede, 2012). Some culturally diverse practices in child rearing may appear neglectful by American standards, but in other countries they might be considered normal. For example, Asian parents place a strong emphasis on obedience, proper behavior, meeting social obligations and group achievement, whereas in Caucasian American culture parents are concerned with a child's ability to gain self-expression and individual identity (Marshall and Enzmann, 2012).

Although it is almost impossible to identify a country that does not view the family as an important mechanism of emotional and interpersonal support, the extent to which societies view it as essential to the social fabric of society appears to vary across political and cultural contexts (Kohli et al., 2005; Minkov and Hofstede, 2012). For example, Italian families have been described as close and personal, whereas families in Spain are described as large and affectionate (Gannon and Pillai, 2010). Families in Latin America emphasize problem solving in addition to support, whereas Mediterranean countries have the most traditional two-parent nuclear family structure (Qiu et al., 2013). In this way, family structure and function are shaped by the cultural context in which they occur; the role of family in delinquency prevention must be viewed in the political and cultural context in which it occurs. Based on these characteristics, most cultures in the world can be placed within two basic frameworks – individualism and collectivism – of how culture drives family dynamics and informs essential differences in child rearing (Johnson et al., 2013).

Marriage is one of most straightforward examples available in understanding the difference between collectivist and individualist countries. In countries such as India, China, and Israel, arranged marriage is still prevalent and parental influence on mate choice is very impactful (Marshall and Enzmann, 2012). Alternatively, in the United States, a Western individualistic country, mate decision is left up to individual preference, with minimal parental influence. People in individualist cultures place more emphasis on emotions of love as a basis for marriage than do people in collectivist countries (Levine et al., 1995).

The concept of individualism/collectivism refers to the connectedness among individuals (Oyserman et al., 2002). Individualistic cultures emphasize independence, individual rights, and self-sufficiency, whereas collectivist cultures stress interdependence, obligations of others, and relying on the group (Brewer and Venaik, 2011; Hofstede, 2011; Oyserman et al., 2002). People in individualistic cultures tend to be more independent in part because of the rewards given for independent behavior and the high priority placed on personal and professional growth (McCarty and Shrum, 2001). Here, individuals are hired and move up the social and economic ladder based more on individual rather than group achievements. Within collectivist countries, on the other hand, the goals of individuals are subordinate to group goals and personal achievements (Oyserman et al., 2002). Specifically, the notion of collectivism stands for a society in which people from birth are integrated into a strong, cohesive in-group, which throughout their life protects them in exchange for loyalty to the group (Hofstede, 2011). Individual identity is determined more by the collective view of the larger group. For these reasons, it might be expected that collectivist cultures might be more effective in fostering social controls or restraints against deviant behavior than individualistic cultures.

In this regard, it is well established that there are cross-cultural differences in parenting styles, not surprisingly, most being exemplified between collectivist and individualist cultures (Kelley and Tseng, 1992; Yaman et al., 2010). Parents from individualistic cultures tend to raise children under more authoritative styles with a focus on negotiation and responsiveness to the child's input (Kelley and Tseng, 1992; Rudy and Grusec, 2006). The goal of the parenting style within individualist cultures (for example, the USA and Germany) is to promote autonomy, self-interest, and self-reliance in the socialization process (Rudy and Grusec, 2006). In collectivist household, in contrast, parents promote values such as conformity, adherence to social convention, and interdependence within groups in the process of socialization (Greenfield et al., 2006). The demand for obedience and respect for adults is typically normative within collectivist cultures; thus parents are more likely to employ strict practices because this fits their model of good parenting (Ispa et al., 2004).

Within the USA there is great variability in endorsement and use of parental control based on one's culture (Ispa et al., 2004; Yaman et al., 2010). Bradley and colleagues (2002) found that African Americans were more likely to exhibit strict or intrusive childrearing practices as compared with European and American mothers. Latino mothers tended to favor obedience and politeness more than European American mothers (Bradley and Corwyn, 2002). Due to these cultural differences only within the USA, there is a greater likelihood similar relationships could be exhibited cross-nationally,

specifically within a classification of cultural contexts of collectivist and individualist nations. Thus, there is a strong need to assess the mechanisms by which culture may influence familial attachments' effect on deviance across a sample of diverse cultures.

Research that has examined cultural differences in values between individualism and collectivism shows that parents values, beliefs, and socialization goals are impacted by cultural context (Tamminen, 2006). Parenting style has been defined as a group of attitudes towards a child or adolescent that creates an emotional condition for the expression of parental behavior (Musitu and García, 2004). Numerous studies have found that, in collectivist cultures, parenting style is often defined by higher levels of control over children, obedience, and more restraining during social play and feeding than those that emphasize independence (Chao, 1994; Rudy and Grusec, 2006; Sinha, 1981). Grusec, Rudy, and Martini (1997) argued that, in collectivist cultures, children are thought to attend to the needs of the in-group and limit the expression of their own wants. Parents often promote authoritarian parenting in order to promote the development of these qualities. Thus, in collectivist cultures, authoritarian parenting may be appropriate, since it is valued as an appropriate mechanism of socialization.

In more individualistic cultures, however, parents' pursuit of authoritarian parenting might go against the cultural norms of socialization (Rudy and Grusec, 2006). But, in more collectivist cultures, Kağitçibaşı (1996) argued children may see parental control as normal, whereas in individualistic countries authoritarian parenting might be seen as hostile or a rejection of the child. More authoritarian parenting in cultures emphasizing interdependence might be positive evidence of efforts by parents to raise well-behaved, respectful children (Hardwood et al., 2002). This type of parental control, when combined with a warm and responsive parent-child relationship, appears to be associated with positive child outcomes among collectivist cultural groups (Smith and Krohn, 1995; Stephan et al., 1998).

A number of studies have shown that adolescents who have a less secure attachment to their parents become more likely to compensate for their emotional disturbances by engaging in antisocial and/or deviant behavior (Hoeve et al., 2012; Overbeek et al., 2005). Most importantly, those who have been exposed to poor parental attachment, unstable family structures, and limited supervision are more likely to participate in antisocial and deviant behavior (Crosnoe et al., 2002). Effective parenting and strong attachment during the first six to eight years of life have been shown to produce self-control (Burt et al., 2006). According to Gottfredson and Hirschi (1990), a central part in parenting practices is the development of self-control, which has an inverse relationship to the propensity to engage in crime. For these reasons, it is important to assess whether individualism and collectivism play a role in the complex relationship between parental attachment and deviant behavior.

There is no doubt that cultural differences exist across countries and forming a framework to understand those differences is vital to appreciating behavioral differences cross-culturally. One of the most widely studied cultural frameworks on individualism-collectivism (I-C) is that proposed by (Hofstede, 1980, 2011). Hofstede's dimension of I-C is a framework for cross cultural communication. Therefore, we utilized the I-C component of Hofstede's framework in analyzing the relationship between family attachment/bonding and deviance.

Approach

The dimensions of individualism–collectivism are part of a larger model classifying national cultures (Hofstede, 1980, 2011). In Hofstede's survey a total of 14 items were used to measure I–C. The responses to the 14 items were aggregated and weighted by their respective factor score coefficients, which were closely related to their factor loadings (Hofstede, 2001). The three items that represent the individualism pole of the continuum focus primarily on self-related or personal goals, namely personal time, freedom, and personal sense of accomplishment (Hofstede, 2001). At the opposite end of the continuum, collectivism focuses on group-related goals, such as work opportunities, working conditions, and using group-oriented skills (Hofstede, 2001). The I–C scale runs from 0 to 100, with 50 as a midlevel. Countries scoring below 50 were considered 'collectivist' and scores above 50 were considered 'individualist' (Hofstede, 2011). Individualist countries in this study include the USA, the Netherlands, Belgium, France, Hungary, Italy, Switzerland, Denmark, Sweden, Norway, Poland, Germany, Ireland, Iceland, Finland, Lithuania, Estonia, Armenia, and Czech Republic. Collectivist countries include Russia, Spain, Austria, Venezuela, Portugal, Slovenia, and Suriname.

Individualistic countries with a score over 50 place a higher value on individual over group identity, individual rights over group obligations, and individual needs over adherence to group norms (Hofstede and Hofstede, 2001; Triandis et al., 1988). Collectivist countries with a score below 50 place higher priority on group goals and cooperation of group members in maximizing individual outcomes (Hofstede, 1980; Hofstede and Hofstede, 2001). For example, Canada scores 80 on the individualism vs. collectivism continuum and can be characterized as an individualist country. Canadians strive to attain high standards of performance, and the overall cultural emphasis on close attachment to others may not be as pronounced as in collectivist countries (Hofstede, 2011). If true, we might expect individuals who are members of collectivist cultures to be more strongly attached to parents, peers, teachers, and schools than members of individualist countries.

Although poor parental attachment increases the risk of deviant behavior, previous work has examined this relationship across specific cross-national contexts (Hoeve et al., 2009, 2012). This study seeks to examine the relationship within 26 countries. Taking a cultural perspective means understanding the reasons that a theory developed and tested in one culture may or may not apply to other cultures (Oyserman, 2017). I shall assess whether this link varies if the countries are clustered within an individualist–collectivist cultural orientation. The present study addresses the following research questions: How strong is the association between attachment and risky behavior? How strong is the association between attachment and minor delinquency? I also test whether the attachment–delinquency link differs based on individualist/collectivist country clusters (two separate data-sets) and measure whether parental attachment is weakened in individualistic countries.

Methods

Data

For the purposes of this paper, secondary data are obtained from a subsample of 26 countries from the Second International Self-Report Delinquency Study (ISRSD-2) (Junger-Tas,

2012). The 2005–7 ISRD-2 study is a school-based survey of youth in grades 7–9. The researchers chose to use 7th–9th graders as the target population in order to best capture the compulsory education of 12–15-year-olds in most of the participating countries. The data used consist of 66,164 male and female youth living within 26 countries. A total of 7 collectivist countries and 19 individualist countries are present in the current study. Each of the countries in the analyses corresponds to Hofstede's framework of national culture, specifically individualism vs. collectivism.

The utilization of the ISRD-2 dataset provides a unique opportunity to examine how parental attachment and parental supervision vary across regions and countries around the world. The ISRD-2 dataset asks questions pertaining to indicators of the adolescent's family, school, peers, neighborhood, delinquency, and alcohol and drug use outcomes (Junger-Tas, 2012). It is one of the only international datasets to offer standardization of questions, sampling methods, survey administration, data coding, and data entry (Junger-Tas, 2012). More detailed information on the data has been provided elsewhere (Junger-Tas et al., 2009; Marshall and Enzmann, 2012).

Measures

Dependent variables. *Lifetime prevalence of risky behavior* is measured by asking students whether they had: (1) ever drunk beer, breezers, or wine? (2) ever drunk strong spirits (gin, rum, vodka, whisky)? and (3) ever smoked? All items were coded (0 = no/otherwise, 1 = yes). An additive score was calculated based on the three questions so the total score ranged from 0 to 3. A higher score signifies that an individual reported a higher number of risky behaviors.

Lifetime prevalence of minor delinquency is measured by asking students whether they had: (1) participated in a group fight on the school playground, a football stadium, the streets, or in any public place? (2) carried a weapon, such as a stick, chain, or knife (not a pocket-knife)? and (3) damaged something on purpose, such as a bus, shelter, window, etc.? An additive score was calculated based on these three questions, in order for the total score to range from 0 to 3.

Independent variables. *Family attachment* is constructed using four items measuring closeness to their mother, closeness to their father, spending leisure time together with their parents, and having dinner with their parents. Each item is summed and transformed into a POMP (Percent of Maximum Possible) score to create the family bonding scale ($\alpha = .55$). The POMP technique produces a score with a possible maximum of 100 for each individual on a particular measure, where a higher score indicates 'more' of that trait.¹

Parental supervision is a variable with three categories regarding whether the youth gets supervised: (1) rarely or never, (2) sometimes, or (3) always (or he or she does not go out). This variable was decomposed into a two dummy variable, with a value of 1 where the results are sometimes, and 0 for rarely or never and always (or he or she does not go out). The second dummy variable has a value of 1 where the results are always (or he or she does not go out), and 0 for rarely or never and sometimes. Rarely or never served as the reference category, since it had the highest frequency.

Family affluence scale (FAS) is a measure of parental socioeconomic status. The FAS was originally developed by Currie, Elton, Todd, and Platt (1997), and has since been validated cross-nationally (Boyce et al., 2006; Torsheim et al., 2004). The scale is a combined variable on a 0–100 scale which consists of four yes or no questions items: (1) whether the adolescent has his or her own room, (2) whether the adolescent owns a PC, (3) whether the adolescent owns a mobile phone and (4) whether the family has a car.

Control variables. Control variables include *grade*, *sex*, *broken home* and *nativeness*. Students in all countries were asked to answer the same questions in a standardized questionnaire. Gender is measured by asking participants to indicate their sex; responses were given as 0 for male or 1 for female. Grade is measured as a proxy for age and is added into each model. Grade is often used rather than age in school-based samples because it more adequately reflects social age (Junger-Tas, 2012).

A dichotomous measure (0 = non-native, 1 = native) is created in order to measure whether respondents were born in the country of the survey or were born in another country. The latter encompasses first- and second-generation immigrants. The evidence from prior studies points consistently in the direction of higher offending rates among immigrant adolescents (Junger-Tas et al., 2009). It is important to control for native status of respondents in order to see if outcomes differ significantly for natives and non-natives. Since I was interested in the collectivist vs. individualistic nature of cultures, it is important to note that a majority of respondents were born in their respective countries. It is possible the results might change with a greater representation of first- or second-generation immigrant respondents. For instance, some countries analyzed in this analysis have seen a huge influx of immigrants, such as Germany, France, Sweden and Canada (Triandafyllidou and Gropas, 2016)

A two category I–C measure (1 = individualist, 2 = collectivist) is created in order to measure whether respondents were living in a collectivist country or were living in an individualist country. The final control variable assessed family context, specifically whether respondents live with both parents (0 = traditional family, 1 = broken home).

Statistical analyses

Pearson coefficients determine the basic associations among study variables and verify that correlations exist in the expected direction (Havlicek and Peterson, 1977). Linear regression is used for risky behavior; negative binomial regression is used for the overdispersed dependent variable of minor delinquency (Hilbe, 2011). The standard errors are adjusted in both outcomes to account for the clustering of participants in countries. Table 1 provides descriptive statistics on the variables used within the study, including mean, standard deviation (SD), and range.

To test associations between outcome variables (risky behavior and minor delinquency) separate regressions were performed for each outcome variable controlling for demographic characteristics. First, linear regression was used to establish whether there is a relationship between family attachment and lifetime prevalence of risky behavior. Second, a negative binomial regression was used to establish whether there is a relationship between family attachment, parental supervision, and lifetime prevalence of minor

Table 1. Descriptive statistics.

	Full sample (N = 66,648)			Collectivist sample (N = 19,021)			Individualist sample (N = 47,627)		
	Mean	SD	Range	Mean	SD	Range	Mean	SD	Range
Risky behavior	1.11	.99	0–3	1.08	.98	0–3	1.15	.99	0–3
Minor delinquency	.43	.79	0–3	.37	.72	0–3	.46	.49	0–3
Male	.49	.49	0–1	.48	.50	0–1	.49	.49	0–1
Grade 7	.30	.46	0–1	.24	.43	0–1	.30	.46	0–1
Grade 8	.31	.46	0–1	.25	.43	0–1	.31	.47	0–1
Grade 9	.32	.46	0–1	.32	.47	0–1	.32	.47	0–1
Native	.78	.41	0–1	.82	.38	0–1	.77	.41	0–1
Family bonding	80.27	17.05	0–100	79.30	17.14	0–100	81.09	16.79	0–100
Parental supervision									
Rare	.05	.22		.04	.19	0–1	.05	.23	0–1
Always	.58	.49		.64	.47	0–1	.56	.49	0–1
Sometimes	.34	.47		.29	.45	0–1	.36	.48	0–1
Family affluence	84.18	22.60	0–100	79.30	26.61	0–100	86.39	20.37	0–100
Core family	.73	.44	0–1	.72	.44	0–1	.73	.44	0–1

Note: Based on 66,648 cases. SD = standard deviation; standardized coefficients.

delinquency. Additionally, the analyses assess the equality of coefficients for family affluence and family bonding within collectivist and individualist samples.² Third, I divided the complete dataset by collectivist vs. individualist countries, in order to test the same hypothesis utilizing Hofstede's country classification (Hofstede, 1983). I hypothesize that strong family bonding and supervision would contribute significantly to lower levels of risky behavior and minor delinquency within collectivist countries; thus lower effect sizes would be seen in individualist nations. In addition, this relationship is tested within both samples, net of all control variables. The distribution and pattern of missing data were evaluated using the Missing Values Analysis (MVA)³ tool within IBM SPSS Statistics, Version 23 (Von Hippel, 2004). The MVA revealed that less than 5 percent of the data were missing (Weaver and Maxwell, 2014); therefore there was not a pattern of missing data pertaining to any specific study variables of interest.

Results

The descriptive statistics are depicted in Table 1. All of the following tables will provide statistics from three datasets: full sample, collectivist sample, and individualist sample. Table 2 provides all correlation coefficients from the full sample.

Table 3 summarizes the results for linear regression model and Table 4 summarizes the results for the negative binomial regression model. Table 3 contains the results of the linear regression model on risky behavior. As can be seen in Model 1 (Table 3), regression analyses were used to test if familial attachment significantly predicted the respondents' lifetime prevalence of risky behavior. The results of the regression for risky behavior

Table 2. Correlations for full sample (N = 66,648, 26 countries).

Variables	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Risky behavior	–													
Delinquency	.385	–												
Male	.034	.234	–											
Grade 7	-.246	-.037	.015	–										
Grade 8	-.048	.001	.002	-.432	–									
Grade 9	.186	.046	-.008	-.454	-.454	–								
Native	.080	-.049	-.002	-.025	-.001	-.013	–							
Family bonding	-.241	-.153	.052	.109	.025	-.104	.013	–						
Parental supervision – rare	.122	.162	.058	.018	.008	.015	-.050	-.192	–					
Parental Supervision- Always	-.250	-.231	-.111	.052	-.022	-.050	.039	.232	-.127	–				
Parental supervision – sometimes	.208	.165	.084	-.050	.019	.049	-.010	-.150	-.172	-.870	–			
Family affluence	.104	.037	.035	-.060	.018	.040	.047	.092	-.007	-.026	.033	–		
Core family	-.095	-.060	.028	-.001	-.016	-.018	.029	.187	-.045	.075	-.055	.100	–	
I-C Hofstede	-.015	-.054	-.008	.000	-.072	.003	.051	-.048	-.032	.075	-.064	-.142	-.004	–

Table 3. Regression results predicting risky behavior.

DV: Minor delinquency	Model 1: Full sample (N = 66,164)		Model 2: Collectivist countries (N = 18,885)		Model 3: Individualistic countries (N = 47,279)	
	β	SE	β	SE	β	SE
Male	.018*	.006	.001	.013	.022***	.008
Grade 8	.057***	.008	-.008	.017	.071***	.010
Grade 9	.197***	.008	.158***	.016	.214***	.010
Native	.052***	.008	.022***	.017	.068***	.010
Core Family	-.073***	.008	-.047***	.015	-.081***	.009
Parental supervision (ref: rare)						
Sometimes	-.014	.014	.045***	.031	-.031***	.017
Always	-.212***	.014	-.141***	.030	-.232***	.016
Family affluence	.114***	.001	.146***	.002	.091***	.000
Family bonding	-.140***	.001	-.126***	.000	-.147***	.000
R ²	.199		.161		.218	

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

Notes: Parental supervision was represented as three dummy variables, with 'rare' serving as the reference group. All results utilized clustered standard errors (SE) at the country level. Dummy variables included for each country and $N-1$ of them in the regression, leaving one as reference (ref: Italy for full & individualist samples; Spain for collectivist sample).

indicated that most predictors were significant, excluding the dummy variable of sometimes having parental supervision. However, always obtaining parental supervision negatively correlated with the outcome variable of risky behavior relative to rarely obtaining parental supervision; thus, the less they always have parental supervision, the more likely they are to engage in risky behavior. The grade variable appears to be increasing in impact with each passing year. For risky behavior, youth in the 8th grade ($\beta = .057$) were less likely to commit crime than those in 9th grade ($\beta = .197$). The family bonding and parental supervision variables had a significant negative weight, indicating that, after accounting for controls, those students with higher risky behavior were expected to have lower family bonding and parental supervision. In addition, the difference in the effect of family bonding and parental supervision between collectivist and individualist countries was significant. The linear regression model with all predictors produced (risky behavior) $R^2 = .199$, $F(25, 66,164)$, $p < .001$.

The remaining regressions of risky behavior were performed on separate datasets of collectivist vs. individualist countries. As shown in Table 3, Model 2 included only collectivist countries, in which all predictors were significant excluding gender and being in 8th grade relative to 7th grade. The variables accounted for 16.1 percent of the total variance in risky behavior. Model 3 (Table 3) accounted for the basic relationships of deviance within individualist countries ($n = 9$). Model 3 accounted for only 21.8 percent of the total variance. Family bonding and always having parental supervision relative to never appear to be negatively associated with the outcome variables in both individualist and collectivist countries, net of all control variables. This corresponds to the predicted

Table 4. Negative binomial regression models predicting adolescent minor delinquency.

DV: Minor delinquency	Model 1: Full sample (N = 66,164)		Model 2: Collectivist countries (N = 18,885)		Model 3: Individualistic countries (N = 47,279)	
	B	SE	B	SE	B	SE
Male	.858***	.031	.798***	.044	.877***	.038
Grade 8	.095***	.034	.087	.084	.093***	.039
Grade 9	.173***	.032	.245***	.047	.149***	.038
Native	-.131***	.034	-.078	.080	-.150***	.037
Core family	-.192***	.018	-.169***	.033	-.198***	.023
Parental supervision (ref: rare)						
Sometimes	-.174***	.037	-.109	.080	-.193***	.041
Always	-.837***	.039	-.776	.100	-.860***	.042
Family affluence	.002***	.001	.004***	.007	.002*	.001
Family bonding	-.009***	.001	-.007***	.001	-.009***	.000
			18,885		47,279	
Pseudo R ²	7.67%		6.63%		7.90%	

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

Notes: Parental supervision was represented as three dummy variables with 'rare' serving as the reference group. All results utilized clustered standard errors at the country level. Dummy variables included for each country and $N-1$ of them in the regression, leaving one as reference (ref: Italy for full & individualist samples; Spain for collectivist sample).

direction of the relationship. In addition, those who are more affluent are less likely to engage in risky behavior. Adolescents who are not always supervised or bonded to their parents are more likely to engage in lifetime prevalence of risky behavior.

Table 4 summarizes the results of the negative binomial regression model on minor delinquency. The pseudo R^2 term employed here to augment the $-2 \log$ likelihood statistic indicates a quite modest proportion of variance (about 7.6 percent) in minor delinquency explained by family bonding, net of controls. Nevertheless, it is a substantial decrease from those seen in risky behavior (Table 3, Model 1). This dataset appears to be better at predicting risky behavior, as compared with minor delinquency. Also, within this model, youth in the 8th grade ($\beta = .095$) were less likely to commit crime than those in 9th grade ($\beta = .173$). The family bonding and parental supervision variables had a significant negative effect, indicating that, after accounting for controls, those adolescents with minor delinquency were expected to have lower family attachment. There was not a significant effect of family bonding and parental supervision across collectivist and individualist countries. The negative binomial model with all predictors produced (minor delinquency) Pseudo $R^2 = 7.67$ percent, $F(25, 66,164)$, $p < .001$.

The remaining regressions were done for exploratory reasons, since the interaction effect was not significant in predicting minor delinquency. The remaining regressions of minor delinquency were performed on separate datasets of collectivist vs. individualist

countries. As shown in Table 4, Model 2 included only collectivist countries, in which significance rested in family bonding. The variables accounted for only 6.63 percent in collectivist countries, and for only 7.90 percent of the variance in individualist countries. Family bonding appears to be negatively associated with the outcome in both collectivist and individualist countries, thus again confirming that those with more minor delinquency are less likely to be attached to their parents.

Discussion

This study examined the impact of family attachment and supervision on risky behavior and delinquency in most collectivist and individualist countries. Several findings are of note. First, family bonding was consistently negatively related to risky and delinquent behavior. The models accounted for 20 percent of the variance in risky behavior and the individualist dataset for minor delinquency fit the data the best. Those individuals with reduced familial attachment and less parental supervision were more likely to engage in both risky behavior and delinquency.

Second, the impact of family bonding did differ across cultural contexts but not always in the expected direction and not to a large degree. For example, family bonding is positively significant in explaining the effect on minor delinquency in collectivist countries. However, the general pattern confirms findings from the literature that state that family bonding operates as an inhibitor to risky behavior and delinquency.

Third, it is worth noting the declining impact of parental influence with age. The correlation between sometimes having family supervision and age declines from .04 to $-.01$ to $-.15$ over the 7th, 8th and 9th grades. The declines are modest but the measures are only one year apart. We also see a corresponding increase in the likelihood of risky behavior and delinquency over the same age periods. For risky behavior, youth in the 8th grade ($\beta = .057$) were less likely to commit crime than those in the 9th grade ($\beta = .197$). For delinquency, the relationship was less pronounced but still follows the same pattern of older youth committing more crime and younger committing less. This is consistent with the general age-crime curve (D'Unger et al., 1998; Nagin and Land, 1993), a relationship that shows that the probability of illegal behavior increases gradually in childhood to adolescence and then declines after that. This suggests that adolescents might be undergoing a change in socialization experiences, in which they are hanging out more with peers and are less constrained by the supervision of their parents. These findings are consistent with those reported by Sampson and Laub (2003). They assert that informal childhood social control comes mainly from parents and other family members, peers, and school. By adolescence, the important sources of informal social control are peers, school, and non-relative adults. The youth in our sample are making the transition from childhood to adolescence and the modest changes observed in the correlation and regression coefficients reflect this movement.

Fourth, family affluence is not as important as originally hypothesized. It is common for family structure to be related to family affluence, which may serve as a protective or risk factor for children (Levin et al., 2012). In my sample, the relationship was not present, which could mean that it is not as pronounced in the countries analyzed. One explanation for a lack of relationship between family affluence and family structure could be

driven by the sample being comprised of a majority of mostly developed democracies with relatively higher national wealth (Bronfenbrenner, 2017). A larger variation in economic wealth within countries might have produced more pronounced results. The last finding to note is the variance explained by nativeness on risky behavior and delinquency. This study anticipated a significant effect of native on the outcome variables. It is important to note most first-generation immigrants are comprised of a large and diverse group of individuals from different countries, thus future analyses might need to delve further into country-specific dynamics. A more recent dataset accounting for the huge influx of refugees into Europe could possibly depict a more pronounced narrative.

The narrative laid out within this study could be a result of the selection of countries available within the dataset. A majority of the countries within this dataset clustered around Europe, which could be driving the high number of individualist countries present. For example, most Asian countries tend to be collectivist, but were absent mostly from this group. In addition, the number of European countries could also be driving the significant amount of variance explained by family bonding on risky behavior, net of controls. Most European countries exhibit high rates of substance use, relative to other advanced countries, and could be driving the high prevalence of risky behavior. Risky behavior holds a low level of risk for the individuals with a high prevalence of substance use, but deviant behavior is linked with increased costs and a higher risk of getting caught. Drinking and smoking could be seen more as a social activity in these individualist contexts, while the consequences of getting into a fight, carrying a weapon, or damaging a property are greater.

Conclusion

The findings in this study have important implications. As emphasized, family is an important mechanism for emotional and interpersonal support in a majority of cultural contexts. My study assesses the nature of family bonding and measures of deviance, across a set of 26 collectivist and individualist countries. The findings of this study confirmed other researchers' theoretical considerations regarding family bonding and function (Hoeve et al., 2012; Weber et al., 1995). This study was able to find significant differences in family bonding and parental supervision across diverse cultural contexts, but these relationships were not always in the expected direction or very significant. The family bonds construct can be used to measure the strength and forms of interdependence between individuals and their family members. Future research could delve further into the variation in family bonding and function across cultures. There remains a large amount of research to be done to unravel the complex nature of family bonding within collectivist and individualist nations.

It is important to keep in mind this study is not without limitations. First, it is important to acknowledge that family bonding may vary across individualist cultures, as it might vary across collectivist cultures. This study makes the common mistake of treating individualist and collectivist cultures as two distinct, monolithic types of culture. This study took a static view of culture and did not incorporate the possibility of cultural changes and interactions. For example, I did not account for collectivist immigrants living in an individualistic culture and individualist individuals interacting with counterparts based in

collectivist countries, leading to changes in values and behavior, which need to be taken into account when conducting additional empirical work. More research should study the variations in collectivism and individualism, and then determine how they influence family bonding within countries. Second, this study relied on a school-based sample, which typically does not include the adolescents who are the most delinquent, have learning problems, or truant the most. An aim of future studies would be to include a set of more diverse countries and contexts, and to implement multilevel analyses in which country-level variables can be added to the model.

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Notes

1. Pomp refers to the transformation of mean scores to POMP scores (interval [0,100]) (Cohen et al., 1999). POMP scores are calculated by $POMP = 100 * (raw - min) / (max - min)$ with raw = original mean score of variables (items) with valid values, min = minimum possible value, and max = maximum possible value (min and max need not exist in the actual data) (see Cohen et al., 1999).
2. Researchers have questioned the utility of Clogg, Petkova, and Haritou (1995)'s test for comparing maximum likelihood coefficients, but an alternative has not been proposed. The equality of coefficients test is not as rigorous as a formal test, but it allows for useful targeting of differences and similarities between two coefficients (Paternoster et al., 1998; Steiner and Wooldredge, 2014).
3. SPSS MVA will impute missing values using a variation of the expectation-maximization approach (EM) approach. In addition, it provides the imputed values; SPSS's implementation of EM provides information on patterns of missing data and differences between cases with and without imputed values.

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