

Supplemental Material:

Sociocultural Influences on Alcohol Expectancies in Early Adolescence: Findings from the ABCD Study

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Health Psychology

Supplemental Material

Supplementary Table 1. Description and original sources of ABCD Study measures used in the present study.

Variable	Measure	Description	Source
Demographic covariates	Demographic questionnaire composed primarily of items drawn from the PhenX toolkit	Demographic questionnaire composed primarily of items and questions from the PhenX toolkit, including covariates for youth age, sex at birth and race-ethnicity, whether the youth had a sibling (singleton, siblings, twins, or triplets), family nativity (family born outside of the U.S. versus in the U.S., including siblings, parents or grandparents).	Stover, P.J., Harlan, W.R., et al., 2010. PhenX: a toolkit for interdisciplinary genetics research. <i>Current Opinion in Lipidology</i> . 21 (2), 136–140
Family history of alcohol use problems	Family History Assessment from the National Consortium on Alcohol and Neurodevelopment in Adolescence (NCANDA)	Parents are asked if any of their child’s blood relatives have ever had a problem with alcohol including marital separation or divorce; laid off or fired from work; arrests or DUIs; alcohol harmed their health; in an alcohol treatment program; suspended or expelled from school 2 or more times; and isolated self from family, caused arguments, or were drunk a lot. Blood relatives were defined as biological mother, biological father, maternal and paternal aunts and uncles, and youth’s full and half siblings. Responses were collapsed and recoded into any problematic alcohol use (0 = No, 1 = Yes).	Brown, S.A., Brumback, T., et al., 2015. The national consortium on alcohol and NeuroDevelopment in adolescence (NCANDA): a multisite study of adolescent development and substance use. <i>Journal of Studies on Alcohol and Drugs</i> , 76 (6), 895–908.
Positive and negative alcohol use expectancies	Alcohol Expectancy Questionnaire- Adolescent, Brief (AEQ-AB)	7-item measured on a 5-point Likert scale (1 = Disagree strongly; 5 = Agree strongly) assessing thoughts, feelings and beliefs about effects of alcohol use. The AEQ-AB is comprised of 2 subscale mean scores, General Positive Effects and Potential Negative Effects consisting of 4 items and 3 items respectively. <u>Sample Items:</u> <i>Alcohol helps a person relax, feel happy, feel less tense, and can keep a person’s mind off of mistakes at school or work.</i>	Brown, S. A., Christiansen, B. A., & Goldman, M. S. (1987). The alcohol expectancy questionnaire: An instrument for the assessment of adolescent and adult alcohol expectancies. <i>Journal of Studies on Alcohol</i> , 48(5), 483–491. Stein, L. A., Katz, B., Colby, S. M., Barnett, N. P., Golembeske, C., Lebeau-Craven, R., & Monti, P. M. (2007). Validity and Reliability of the Alcohol Expectancy Questionnaire-

		<i>Alcohol can hurt how well a person gets along with others (makes people mean to others)</i>	Adolescent, Brief. <i>Journal of Child & Adolescent Substance Abuse</i> , 16(2), 115–127.
Prosocial behaviors	Prosocial Behavior Scale, subscale from the “Strengths and Difficulties Questionnaire”	Describes the tendency to engage in behaviors to help others, and has been studied as part of social competence and resilience. Youth self-report on prosocial behaviors (e.g., being considerate of other people’s feelings, helpful is someone’s hurt, often offering to help others) by rating behaviors over the past 6 months on a three-point scale (0=not true to 2=certainly true). Summary scores consists of mean values with higher scores indicating greater prosocial behavior.	Goodman, R., Meltzer, H., & Bailey, V. (1998). The Strengths and Difficulties Questionnaire: a pilot study on the validity of the self-report version. <i>European Child & Adolescent Psychiatry</i> , 7(3), 125–130.
Adverse life events	Life Events Scale	A 26-item measure that describes a variety of experiences. Children are asked to indicate whether each life event happened to them in the prior year (yes/no), and if so, to report if the event was “mostly good” or “mostly bad” for them (not applicable, or don’t know). Example items include, “Someone in family died”, “Was a victim of crime/violence/assault”. They are then asked how much the event affected them (not at all, a little, some, or a lot).	Tiet, Q. Q., Bird, H. R., Davies, M., Hoven, C., Cohen, P., Jensen, P. S., & Goodman, S. (1998). Adverse life events and resilience. <i>Journal of the American Academy of Child and Adolescent Psychiatry</i> , 37(11), 1191-1200.
Parental monitoring	Parental Monitoring Questionnaire	The Parental Monitoring Questionnaire contains 5 items assessing a parent’s active efforts to keep track of a child’s whereabouts, both at home, and when they are not at home (e.g., who they are with; what they are doing). This measure is derived from two other measures. For all items, response is by way of a Likert-type scale ranging from 1=never to 5=always or almost always (5). Summary scores are calculated by mean values with higher scores indicating greater levels of parental monitoring. <u>Sample item</u> <i>How often do your parents know who you are with when you are not at school and away from home?</i>	Karoly, H. C., Callahan, T., Schmiede, S. J., & Feldstein Ewing, S. W. (2015). Evaluating the Hispanic Paradox in the context of adolescent risky sexual behavior: the role of parent monitoring. <i>Journal of Pediatric Psychology</i> , 41(4), 429-440. Stattin, H., & Kerr, M. (2000). Parental monitoring: A reinterpretation. <i>Child Development</i> , 71(4), 1072–1085.
Family conflict	Family Conflict Subscale of the Family Environment (FES)	The ABCD Family Conflict Subscale of the Family Environment Scale is modified from the original Family Environment Scale. It consists of 9 items assessing the amount of openly expressed conflict among family members. The measure is widely used, has a dichotomous response self-report format, and is also a part of the PhenX Toolkit. For scoring, each true/false item is assigned a	Moos, R.H, & Moos, B.S. (2009). <i>Family Environment Scale Manual: Development, applications, and research</i> (4th Ed.). Menlo Park, CA: Mind Garden, Inc.

		<p>value of 0 or 1 with appropriate reverse coding for those 4 items that negate conflict instead of describing the direct presence of it. (e.g., family members hardly ever lose their temper). Higher scores indicate a more-conflictual family environment.</p> <p><u>Sample item</u> <i>We fight a lot in our family</i></p>	
<p>Peer Involvement:</p> <ul style="list-style-type: none"> • Prosocial peer involvement • Rule-breaking /delinquent peer involvement 	<p>ABCD Peer Behavior Profile Prosocial & Delinquent Peer Involvement Peer Behavior Profile (PBP): Peer Involvement (PPI)</p>	<p>The Youth Peer Behavior Profile consists of two 3-item self-rated subscales, the Prosocial Peer Involvement subscale and the Rule Breaking/Delinquent Peer Involvement subscale, that assess the extent to which the youth’s friendship network consists of (a) prosocial peers (e.g., friends who are excellent students, are athletes, etc.), and/or (b) rule breaking/delinquent peers (e.g., friends who skip school, shoplift, etc.); the two sub-scales are not mutually exclusive. The measure uses a subset of 8 items drawn from the 54 item Peer Behavior Profile/Peer Activities Questionnaire. Participants report what proportion (based on a 5-point scale ranging from “none or almost none” to “all or nearly all”) of their peers are involved in these behaviors.</p>	<p>Bingham, Fitzgerald & Zucker (1995). Peer Behavior Profile/Peer Activities Questionnaire. Unpublished questionnaire. East Lansing: Department of Psychology, Michigan State University.</p>
<p>Relational victimization</p>	<p>ABCD Peer Experiences Questionnaire – Relational victimization subscale</p>	<p>Measured with Relational Victimization subscale from a modified version of the Revised Peer Experiences Questionnaire – Bully and Victim. Relational victimization refers to behaviors that are damaging to peer relationships through peer exclusion. The Relational Victimization subscale contains 3 items on a 5-point Likert scale ranging from 1=never to 5=a few times per week. Summary scores are calculated by taking a sum of all items.</p> <p><u>Sample Item:</u> <i>Another kid gossiped about me so others would not like me.</i></p>	<p>De Los Reyes, A. & Prinstein, M. J. (2004). Applying depression-distortion hypotheses to the assessment of peer victimization in adolescents. <i>Journal of Clinical Child and Adolescent Psychology</i>, 33, 325-335.</p> <p>Prinstein, M. J., Boergers, J., & Vernberg, E. M. (2001). Overt and relational aggression in adolescents: Social-psychological functioning of aggressors and victims. <i>Journal of Clinical Child Psychology</i>, 30, 477-489.</p>
<p>Relational aggression</p>	<p>ABCD Peer Experiences Questionnaire – Reputational Aggression Subscale</p>	<p>Measured with Relational Reputational Aggression subscale from a modified version of the Revised Peer Experiences Questionnaire – Bully and Victim. Reputational aggression refers to perpetrating behaviors intended to harm others through manipulation of social status. The subscale contains 3 items on a 5-point Likert scale</p>	<p>De Los Reyes, A. & Prinstein, M. J. (2004). Applying depression-distortion hypotheses to the assessment of peer victimization in adolescents. <i>Journal of Clinical Child</i></p>

		<p>ranging from 1=never to 5=a few times per week. Summary scores are calculated by taking a sum of all items.</p> <p><u>Sample Item:</u> <i>I tried to damage another kid's social reputation by spreading rumors about them</i></p>	<p><i>and Adolescent Psychology</i>, 33, 325-335.</p> <p>Prinstein, M. J., Boergers, J., & Vernberg, E. M. (2001). Overt and relational aggression in adolescents: Social-psychological functioning of aggressors and victims. <i>Journal of Clinical Child Psychology</i>, 30, 477-489.</p>
<p>School Risk & Protective Factors:</p> <ul style="list-style-type: none"> • School Involvement • School Disengagement • Positive school environment 	PhenX School Risk and Protective Factors (SRPF)	<p>School Risk and Protective Factors questionnaire (SRPF) examines youth's perceptions of their involvement in school. The items in the SRPF inventory were derived from the content domains for the School Social Environment section in the PhenX Toolkit. 4 items assess school involvement, 2 items assess school disengagement, and 6 items assess positive school environment. Items are on a 4-point Likert scale as follows: (1 = NO!; 2 = no; 3 = yes; 4 = YES!) Youth are instructed to mark (the BIG) YES! if you think the statement is definitely true for you. Mark (the little) yes if you think the statement is mostly true for you. Mark (the little) no if you think the statement is mostly not true for you. Mark (the BIG) NO! if you think the statement is definitely not true for you.</p> <p><u>Sample item:</u> <i>There are lots of chances to be part of class discussions or activities.</i></p> <p><i>Getting good grades in not so important to me.</i></p> <p><i>My teacher(s) notices when I am doing a good job and lets me know about it.</i></p>	<p>Arthur, M. W., Briney, J. S., et al. (2007) Measuring risk and protection in communities using the Communities That Care Youth Survey. <i>Evaluation & Program Planning</i> 30(2): 197-211</p>
Neighborhood safety	PhenX: Neighborhood Safety/Crime	<p>The PhenX measure consists of three statements that assess feelings about safety and presence of crime in the participant's neighborhood, including: feeling safe walking in one's neighborhood, violence in the neighborhood, and crime in the neighborhood. Each item is rated on a 5-point Likert scale ranging from 1=strongly disagree to 5=strongly agree. For youth one item thought to be most appropriate for participants' age range was used to measure neighborhood safety (i.e., "My neighborhood is safe from crime").</p>	<p>Echeverria, S. E., Diez-Roux, A. V., et al. (2004) Reliability of self-reported neighborhood characteristics. <i>J Urban Health</i>, 81(4): 682-701</p>

Neighborhood disadvantage	Area deprivation index	<p>Area deprivation index (ADI) is geocoded data that consists of a composite metric of neighborhood disadvantage derived from 17-variables from the U.S. Census Bureau’s American Community Survey (ACS). ADI for youth participants’ primary residential address at the baseline visit is a composite weighted-sum metric of neighborhood disadvantage (e.g., poverty rates, unemployment, median family income, low education) Census-tract-level ADI, based on the 2011-2015 five-year ACS estimates, was computed based on coefficient values from Kind, et al. and discretized into national percentiles for the ABCD data release.</p>	<p>Kind, A. J., Jencks, S., Brock, J., Yu, M., Bartels, C., Ehlenbach, W., Greenberg, C., & Smith, M. (2014). Neighborhood socioeconomic disadvantage and 30-day rehospitalization: a retrospective cohort study. <i>Annals of Internal Medicine</i>, 161(11), 765–774.</p>
Familism	Mexican American Cultural Values Scale (MACVS)	<p>The MACVS instrument is a 50-item measure that is identical for adults and adolescents.</p> <p>Three familism subscales of the MACVS were used: a) the family support subscale, which emphasized the maintenance of close family relationships; b) the family obligation subscale, addressing the value of tangible support and caregiving of family members; and c) the family referent subscale, which addressed reliance on communal/familial relations. The three familism subscales total 16 items. Responses are on a 5-point scale ranging from 1 = not at all to 5 = completely. As per the developer’s instructions, a total familism score was created using a mean value of the items for the three subscales.</p> <p><u>Sample Items:</u> <i>Family provides a sense of security because they will always be there for you.</i> <i>Children should be taught to always be good because they represent the family.</i></p>	<p>Knight, G. P., Gonzales N. A., et al. (2010) The Mexican American Cultural Values scales for Adolescents and Adults. <i>Journal of Early Adolescence</i>, 30(3): 444-481.</p>
Acculturation	ABCD Acculturation Survey Modified from PhenX	<p>The Acculturation questionnaire is a subset of questions from the PhenX Acculturation protocol. These items measure level of participant acculturation – that is, the process by which an individual from one cultural group adapts and borrows traits and values from another culture – by assessing proficiency and preferences for speaking a given language in different settings. The PhenX items come from questions used by the National Latino and Asian American Study, which were originally derived from the “Short Acculturation Scale for Hispanics”</p>	<p>Alegria, M., Takeuchi, D., Canino, G., Duan, N., Shrout, P., Meng, X.-L., Vega, W., Zane, N., Vila, D., Woo, M., Vera, M., Guarnaccia, P., Aguilar-gaxiola, S., Sue, S., Escobar, J., Lin, K.-m. and Gong, F. (2004), Considering context, place and culture: the National Latino and Asian American Study. <i>Int. J. Methods Psychiatr. Res.</i>, 13: 208–220.</p>

		<p>The questionnaire consists of five items rating how well participants speak English, if participants speak a language or dialect other than English (and if so, which language or dialect), what languages are spoken most with friends and family (exclusively). Higher scores indicated greater English language use and proficiency.</p>	<p>Marin, G., Sabogal, F., Marin, B. V., Otero-Sabogal, R., & Perez-Stable, E. J. (1987). Development of a short acculturation scale for Hispanics. <i>Hispanic Journal of Behavioral Sciences</i>, 9(2), 183-205.</p> <p>Moos, R.H. & Moos, B. S. (1976). A typology of family social environments. <i>Family Process</i>, 15, 357-371.</p>
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Supplementary Table 2. Comparison of sample demographics for participants with complete data in the sample analyzed and the sample with missing data.

Variable	Sample Analyzed n=5322		Sample with missing data n=963		p
	n	%	n	%	
Sex					0.897
Female	2497	46.9	454	47.1	
Male	2825	53.1	509	52.9	
Family Nativity (Anyone in family born outside U.S.)					0.614
Yes	1697	31.9	315	32.7	
No	3625	68.1	648	67.3	
Race and ethnicity					<0.001
Hispanic	886	16.7	150	15.6	
Non-Hispanic White	3211	60.3	529	54.9	
Non-Hispanic Black	581	10.9	145	15.1	
Asian	94	1.8	22	2.3	
Other/Mixed	550	10.3	117	12.2	
Whether siblings or not					0.325
Singletons	3446	64.8	594	61.7	
Siblings	788	14.8	153	15.9	
Twins	1070	20.1	213	22.1	
Triplets	18	0.3	3	0.3	
Family history: Has ANY blood relative of your child ever had any problems due to alcohol					0.639
Yes	2514	47.2	447	46.4	
No	2808	52.8	516	53.6	
Variable	Mean	SD.	Mean	SD.	p
Age in years	12.0	0.6	12.0	0.7	0.840

Note: p values were from Chi-square tests between each categorical demographic variable and inclusion in the final model, and two-sample T test on age by inclusion in the final model.

Supplementary Table 3. Results from simple logistic regression models using positive and negative alcohol expectancies to predict missing status of variable.

Missing Status of the Variable	Positive AE				Negative AE			
	OR	95% CI		p	OR	95% CI		p
Race	1.00	0.69	1.45	0.988	0.97	0.71	1.32	0.829
Prosocial behaviors	1.16	0.46	2.91	0.757	1.30	0.53	3.16	0.570
Family history of alcohol abuse problems	1.04	0.86	1.26	0.690	0.88	0.76	1.03	0.109
Family conflict	0.93	0.38	2.28	0.880	1.14	0.52	2.47	0.746
Parental monitoring	0.90	0.32	2.54	0.845	1.30	0.50	3.37	0.592
Prosocial Peers	0.92	0.74	1.13	0.422	0.81	0.69	0.95	0.009
Rule breaking/delinquent peers	1.00	0.84	1.19	0.976	0.81	0.71	0.92	0.002
SRPF School involvement	0.98	0.41	2.38	0.969	1.84	0.65	5.19	0.248
SRPF School disengagement	0.98	0.41	2.38	0.969	1.84	0.65	5.19	0.248
SRPR School environment	0.98	0.41	2.38	0.969	1.84	0.65	5.19	0.248
Neighborhood safety	0.90	0.32	2.54	0.845	1.30	0.50	3.37	0.592
Area deprivation index (ADI)	0.81	0.68	0.98	0.026	0.96	0.83	1.11	0.606
Familism	0.90	0.43	1.87	0.782	1.09	0.58	2.05	0.784

Note.

Cases with missing values in the Relational victimization and Reputational aggression were also missing in positive and negative alcohol expectancies. Thus, the two variables were excluded from the logistic regression analysis.

Supplementary Table 4. Estimates from sensitivity analysis using minimum and maximum observed value for missingness in the three independent variables.

Independent Variable	Dependent Variable		
	Positive Alcohol Expectancies		
	Estimate	95% CI	
ADI with missing values replaced by minimum observed value	-0.001	-0.002	-0.0003
ADI with missing values replaced by maximum observed value	-0.001	-0.002	-0.0005
Imputed ADI from multiple imputation	-0.001	-0.002	-0.0004
Variable	Negative Alcohol Expectancies		
	Estimate	95% CI	
Prosocial peers with missing values replaced by minimum observed value	0.007	-0.001	0.016
Max Prosocial peers with missing values replaced by maximum observed value	0.002	-0.006	0.011
Imputed Prosocial peers from multiple imputation	0.004	-0.005	0.013
Rule breaking/delinquent peers with missing values replaced by minimum observed value	-0.023	-0.042	-0.005
Rule breaking/delinquent peers with missing values replaced by maximum observed value	-0.016	-0.025	-0.006
Imputed Rule breaking/delinquent peers from multiple imputation	-0.031	-0.051	-0.012

Supplementary Table 5. Unstandardized beta coefficients (B) and 95% confidence intervals (CI), and p-values are reported for models using the sample with complete data for n = 5821 for the bivariate models for the zero-order correlations, i.e., models in which each independent variable was entered as the only predictor of alcohol expectancies (AE) while controlling for all covariates, and results are also reported for the full models in which all independent variables were entered simultaneously as predictors of AE while controlling for all covariates.

Predictors	Positive AE								Negative AE							
	Bivariate Models (Zero-order Correlations)				Full Model (Adjusted Coefficients)				Bivariate Models (Zero-order Correlations)				Full Model (Adjusted Coefficients)			
	B	95% CI		p	B	95% CI		p	B	95% CI		p	B	95% CI		p
LL		UL	LL			UL	LL			UL	LL			UL		
<u>Demographics</u>																
Age in years	0.155	0.125	0.185	<0.001	0.129	0.098	0.161	<0.001	0.050	0.015	0.085	0.050	0.063	0.025	0.100	0.001
Sex: Male vs. Female	0.037	-0.004	0.078	0.072	0.022	-0.022	0.065	0.310	0.052	0.005	0.099	0.052	0.073	0.022	0.125	0.007
Race and ethnicity																
Non-Hispanic Asian vs. Non-Hispanic White	0.018	-0.120	0.157	0.792	-0.027	-0.183	0.129	0.734	-0.037	-0.197	0.122	-0.037	0.081	-0.103	0.265	0.382
Non-Hispanic Black vs. Non-Hispanic White	-0.171	-0.238	-0.104	<0.001	-0.145	-0.221	-0.069	<0.001	-0.216	-0.292	-0.140	-0.216	-0.133	-0.222	-0.044	0.004
Hispanic vs. Non-Hispanic White	-0.105	-0.170	-0.040	0.002	-0.102	-0.174	-0.030	0.006	-0.162	-0.235	-0.088	-0.162	-0.086	-0.170	-0.001	0.047
Non-Hispanic Other/Mixed vs. Non-Hispanic White	0.002	-0.065	0.069	0.963	-0.020	-0.089	0.050	0.577	0.046	-0.031	0.123	0.046	0.068	-0.014	0.150	0.105
Non-Hispanic Asian vs. Non-Hispanic Black ^a	0.190	0.040	0.339	0.014	0.118	-0.051	0.287	0.168	0.179	0.007	0.350	0.179	0.214	0.015	0.413	0.036
Hispanic vs. Non-Hispanic Black ^a	0.066	-0.018	0.150	0.124	0.042	-0.048	0.133	0.351	0.055	-0.041	0.150	0.055	0.047	-0.058	0.153	0.376
Non-Hispanic Other/Mixed vs. Non-Hispanic Black ^a	0.173	0.087	0.259	<0.001	0.125	0.032	0.218	0.009	0.262	0.164	0.360	0.262	0.201	0.091	0.310	0.001
Hispanic vs. Non-Hispanic Other/Mixed ^a	-0.107	-0.191	-0.023	0.013	-0.083	-0.169	0.003	0.060	-0.207	-0.303	-0.112	-0.207	-0.153	-0.254	-0.052	0.004
Non-Hispanic Asian vs. Non-Hispanic Other/Mixed ^a	0.017	-0.131	0.165	0.821	-0.007	-0.170	0.156	0.932	-0.083	-0.254	0.087	-0.083	0.014	-0.179	0.206	0.889
Hispanic vs. Non-Hispanic Asian ^a	-0.124	-0.270	0.023	0.096	-0.076	-0.235	0.084	0.349	-0.124	-0.292	0.044	-0.124	-0.167	-0.355	0.022	0.082
Any family member foreign born vs. All U.S. born	0.050	0.002	0.098	0.044	0.064	0.010	0.117	0.023	-0.015	-0.071	0.040	-0.015	-0.008	-0.071	0.055	0.801
Have siblings or not																
Siblings vs. Singletons	-0.067	-0.126	-0.007	0.028	-0.076	-0.136	-0.016	0.014	-0.012	-0.079	0.055	-0.012	-0.014	-0.084	0.055	0.680
Twins vs. Singletons	-0.069	-0.139	0.000	0.050	-0.061	-0.129	0.008	0.081	0.000	-0.078	0.078	0.000	-0.012	-0.091	0.067	0.770
Triplets vs. Singletons	-0.283	-0.681	0.115	0.159	-0.330	-0.717	0.056	0.092	-0.257	-0.684	0.169	-0.257	-0.275	-0.712	0.162	0.211
<u>Individual factor</u>																
Prosocial behaviors	-0.221	-0.273	-0.168	<0.001	-0.060	-0.123	0.003	0.063	0.140	0.079	0.201	0.140	0.084	0.009	0.158	0.028
Number of negative life events	0.016	0.008	0.025	<0.001	0.007	-0.002	0.017	0.126	0.023	0.013	0.033	0.023	0.022	0.011	0.033	<0.001
<u>Family factor</u>																
Family history of alcohol abuse problems	0.035	-0.008	0.077	0.102	0.014	-0.029	0.057	0.504	0.071	0.022	0.120	0.071	0.068	0.017	0.118	0.011
Family conflict	0.038	0.028	0.049	<0.001	0.016	0.004	0.027	0.010	-0.009	-0.021	0.003	-0.009	-0.003	-0.017	0.011	0.674
Parental monitoring	-0.110	-0.151	-0.069	<0.001	0.000	-0.049	0.049	0.994	0.071	0.023	0.119	0.071	0.006	-0.052	0.064	0.836
<u>Peer factor</u>																
Prosocial Peers	-0.015	-0.023	-0.008	<0.001	-0.007	-0.015	0.002	0.111	0.015	0.006	0.024	0.015	0.004	-0.006	0.014	0.413
Rule breaking/delinquent peers	0.036	0.021	0.052	<0.001	0.018	0.001	0.035	0.040	-0.033	-0.051	-0.015	-0.033	-0.033	-0.053	-0.013	0.002
Relational victimization	0.038	0.028	0.047	<0.001	0.018	0.007	0.028	0.001	0.040	0.029	0.051	0.040	0.035	0.022	0.048	<0.001
Reputational aggression	0.095	0.069	0.121	<0.001	0.049	0.018	0.079	0.002	0.034	0.004	0.065	0.034	0.041	0.005	0.078	0.026
<u>School factor</u>																
SRPF School involvement	-0.038	-0.046	-0.030	<0.001	0.006	-0.006	0.018	0.335	0.019	0.010	0.029	0.019	0.012	-0.003	0.026	0.119
SRPF School disengagement	0.063	0.049	0.077	<0.001	0.030	0.012	0.047	0.001	-0.046	-0.062	-0.029	-0.046	-0.035	-0.056	-0.015	0.001
SRPR School environment	-0.036	-0.042	-0.029	<0.001	-0.011	-0.020	-0.001	0.024	0.004	-0.004	0.012	0.004	-0.009	-0.020	0.002	0.103
<u>Community factor</u>																
Neighborhood safety	-0.033	-0.052	-0.013	0.001	-0.006	-0.028	0.015	0.563	0.058	0.036	0.081	0.058	0.041	0.016	0.067	0.002
Area deprivation index (ADI)	-0.002	-0.003	-0.001	<0.001	-0.001	-0.002	-0.001	0.003	-0.003	-0.004	-0.002	-0.003	-0.001	-0.003	0.000	0.016
<u>Cultural factor</u>																
Familism	-0.196	-0.225	-0.166	<0.001	-0.136	-0.171	-0.101	<0.001	0.041	0.007	0.076	0.041	0.020	-0.022	0.061	0.353
Language use ^b	0.045	0.018	0.072	0.0012	0.046	0.010	0.083	0.0136	0.032	-0.002	0.065	0.0012	-0.002	-0.046	0.042	0.933

^a Estimates from pairwise comparisons.

^b Sample included only participants who spoke another language other than English; Bivariate Model: N = 2333; Full Model with N = 2114, when including all other independent variables.