

Table 1*Risk factors of violence in adolescents*

Risk factors				
Authors and year of publication	N	Gender	Place of study	Additional Information
Hemphill and Heerde (2014)	927	390 male	Victoria (Australia)	- students - data from 2006, 2010 - cyberbullying perpetration
Traditional bullying perpetration, traditional bullying perpetration and victimization, poor family management				
Borowsky et al. (2001)	13,110	-	USA	- students in grades 7-12 - 1995-1996 (11 months apart)
Previous suicide attempt, violence victimization, violence perpetration, alcohol use, marijuana use, and school problems, somatic symptoms, friend suicide attempt or completion, other illicit drug use, a history of mental health treatment, weapon-carrying at school (for boys), same-sex romantic attraction (for boys).				
Jiang și Peterson (2012)	13,236	51.8% female	USA	- 1994-1995 - immigrant and non-immigrant youth
Participation in extracurricular activities, either non-sports alone or sports plus non-sports (non-immigrants).				
Smith, Ireland, Thornberry and Elwyn (2008)	1,000	50% male	-	- urban sample
Official substantiated maltreatment				
Saner and Ellickson (1996)	4,586	54% female	California and Oregon (USA)	- 1985-1990 - high school seniors and high school dropouts - 70% of the baseline sample was retained by grade 12.
Male gender, deviant behaviors (e.g., using and selling drugs, committing nonviolent felonies, other forms of nonviolent delinquency) (stronger predictor for boys), low academic orientation, lack of parental affection and support, perceptions of parents' substance use, family problems or disruption and impaired relationships with parents (stronger predictors for girls), weak bonds with school and family (stronger predictors for boys).				
Reyes et al. (2018)	1,786	50% male	-	- dating violence perpetration (psychological and physical)
High levels of school risk (substance use at school, school bonding), neighborhood risk (neighborhood violence, neighborhood social control), and family risk (family violence, family regulation).				
Copeland-Linder et al. (2011)	500	46.4% female	Baltimore (USA)	- middle school students - urban African American adolescents
Contextual Stress: community violence, neighborhood disorder, and racial discrimination (for boys).				
Langevin et al. (2019)	410	100% male	Quebec (Canada)	- property/violent crimes, physical

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				partner violence
Risk haplotype-based multilocus genetic profile scores.				
Salter et al. (2003)	224	100% male	UK	- victims of sexual abuse
Material neglect, lack of supervision, sexual abuse by a female person, witnessing serious intrafamilial violence (more likely for victim-abusers), physical neglect (more likely for victim-abusers), cruelty to animals (for victim-abusers), suffering from encopresis (for victim-abusers)				
Hishinuma, Umemoto, Nguyen, Chang and Bautista (2012)	881	39.8% male	Hawaii (USA)	- high school students
Physical violence victimization, positive attitudes toward violence, antigay sentiments				
Livingston et al. (2018)	144	51% female	Erie County (USA)	- students in 11th/12th grade
Parental psychopathology in early life - low maternal warmth and self-regulation in early childhood, externalizing behavior from kindergarten to early adolescence, and sibling problems in middle childhood (mediators) – dating violence in adolescence				
Marital conflict – child externalizing behavior (mediator) – teen dating violence				
Estrada-Martínez, Padilla, Caldwell and Schulz (2011)	16,615	51% male	USA	- severe youth violence
Parental engagement (for Blacks and Whites), adolescent autonomy (for Puerto Ricans and Cubans), living in single-parent households or not living with their parents (for Cubans and Whites), and immigration factors.				
Gorman-Smith, Henry and Tolan (2004)	263	100% male	Chicago (USA)	- African American and Latino youth - students in public schools
Exposure to excessive levels of community violence.				
Pardini, Loeber, Farrington and Stouthamer-Loeber (2012)	503	100% male	Pittsburgh (USA)	- students in public schools
Depressed mood, low religious observance, peer delinquency (at ages 13–14 years). Low perceived likelihood of being caught, high neighborhood disorder/crime (at ages 15–18 years).				
Valentino, Nuttall, Comas, Borkowski and Akai (2012)	70	57% male	South (USA)	Bend - mothers and their 18-year-old children - intergenerational continuity of child abuse
Child abuse history, exposure to community violence and lower authoritarian parenting attitudes.				
Schacter, Lessard and Juvonen (2019)	1,987	54% female	California (USA)	- 26 urban public middle schools - aggression towards romantic partner in high school

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Increasing rejection by peers during middle school.				
Banyard, Edwards, Jones and Mitchell (2020)	2,232/ 2,150	51.6% female	-	- perpetration of bullying, harassment, and sexual violence
Use of alcohol (for all forms of violence).				
Caiozzo et al. (2016)	1,180	373 male	USA	- perpetration of aggression in late adolescent romantic relationships
Perpetration of verbal aggression – aggressive attitudes, emotion regulation, and narcissism (for females).				
Aggressive attitudes – low levels of emotion regulation – perpetration of physical aggression.				
Goldstick et al. (2019)	599	58.8% male	Michigan (USA)	- transition in firearm assault
Non-firearm peer violence, firearm victimization, and marijuana use, delinquent peer associations.				
Basile et al. (2018)	3,549	50.2% female	USA	- 2008-2013 - perpetration of sexual violence
Low empathy and social support scores (at the beginning of middle school), quicker deceleration in parental monitoring and empathy, steeply increased for school belonging (from middle to high school).				
Caldwell et al. (2004)	325	5.55% female	USA	- African American
Racial discrimination (strong predictor)				
Racial discrimination – believing that others viewed Blacks favorably (beliefs about how others perceive blacks = moderator) – more violent acts (for males and females).				
Racial discrimination – race was less central to their identity – more types of violent behaviors (for males).				
Bernat et al. (2012)	1,226/ 1,037	55.1% female 58% female	USA	- 1995 Wave 1 – 2002 Wave 3 - high school students
Earlier attention-deficit hyperactivity disorder (ADHD) symptoms, low school connectedness, low grade-point average, and high peer delinquency (risk for violence at age 14 years).				
Smokowski et al. (2017)	4,175	52% female	North Carolina (USA)	- 26 public middle schools and 12 public high schools in two rural and economically disadvantaged counties - aggressive behaviors.
School hassles, parent-child conflict, peer rejection, and delinquent friends.				
Herrenkohl, Lee and Hawkins (2012)	808	49% female	Seattle (USA)	- Study start date: 1985, 18 public elementary schools
Earlier antisocial behavior (e.g., prior violence, truancy, running away from home, nonviolent delinquency, lifetime marijuana use), perceived availability of and exposure to marijuana, attention problems, family conflict, low grades, low school commitment, peer delinquency and living in a neighborhood where young people were in trouble (the strongest predictor).				

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Foshee et al. (2015)	4,227	48% male	North Carolina (USA)	- 2003-2004 - students
Anger, family conflict, and exposure to deviance models in school. Additional risk factors for girls: anxiety, exposure to deviant models in the neighborhood. Additional risk factor for boys only: heavy alcohol use.				
Tanaka, Wekerle, Schmuck, Paglia-Boak and The MAP Research Team (2011)	117	38.6% male	Ontario (Canada)	- suicide attempt
Lower self-compassion.				
Sijtsema, Kretschmer and van Os (2015)	816	357 male	-	- Dutch teenagers
History of Violence/Dysregulation				
Alain, Marcotte, Desrosiers, Turcotte and Lafortune (2018)	5,399	79% male	Québec (Canada)	- between the longitudinal and the cross-sectional design - low violence-related offenders - average age at first conviction: 15.7 years
High numbers of child protection reports (indicating physical abuse, sexual abuse and behavioural problems)				
Leemis et al. (2019)	3,549	50.2% female	USA	- traditional and cyber bullying perpetration - sexual harassment perpetration
High levels of anger, self-esteem, empathy, pornographic exposure, and traditional masculinity (individual level), lower levels of social support and parental monitoring (relational level), and higher levels of school belonging (community level).				
Taylor et al. (2016)	820	49% male	Belfast (Northern Ireland)	- a setting of protracted political conflict. - aggression
Experience with sectarian (i.e., intergroup) antisocial behavior - family cohesion – aggression Boys reported more aggression than girls at age 15.				
Borowsky, Ireland and Resnick (2002)	13,781	6,800 male	USA	- high school students - violence perpetration
A history of grade repetition, time 1 violence perpetration, violence victimization, weapon carrying, school problems, alcohol and marijuana use.				
Henrich, Brookmeyer and Shahar (2005)	7,033	52% female	USA	- high school students - weapon violence
Violence exposure				
Resnick et al. (2004)	13,110	approx. 6,913 male	USA	- high school students

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Perceived prejudice among the students in their school and having a friend who had attempted or completed suicide; T1 suicidal involvement of a family member; easy access to a gun in home (for boys); T1 violence involvement; a history of violence victimization; high levels of emotional distress; weapon carrying to school; skipping school; learning problems; repeating a grade; having a higher self-esteem (for girls only); high levels of somatic complaints (for girls only), poor self-assessed general health; a history of treatment for emotional problems; at least one prior suicide attempt; frequent use of alcohol, marijuana, and/or other illicit drugs; working 20 or more hours per week for pay during the school year (associated risk factor for boys only); learning problems (for girls).
