**Online supplemental material for:**

**Is there a female cycle of violence after exposure to childhood maltreatment?**

**A meta-analysis**

This online supplemental material provides more detailed information about coding procedures and categories (Table 1A) as well as primary study information for all studies (Table 2A).

Table 1A. Study coding scheme.

|  |  |
| --- | --- |
| Variable | Categories |
| Study design | * Longitudinal * Cross-sectional |
| Sample type | * Mixed (heterogeneous samples composed of clinical participants, family court cases, IPV perpetrators and victims, or mixed military/civilian sample) * Student * Clinical * Prisoner * General population * Child welfare * Perpetrator * Low-income family |
| Region of origin | * Africa * Asia * Europe * North America * South America |
| Sample size | Total number of participants as numeric value |
| Broad predictor type | * Childhood maltreatment (CM) * Posttraumatic Stress Disorder (PTSD) * Traumatic events (lifetime traumatic events) |
| For CM: type | * Multi-type maltreatment * Neglect (physical and emotional) * Physical abuse * Psychological abuse * Sexual abuse * Witnessing violence |
| For PTSD: type | Assessment according to a classification system (DSM/ICD)   * Yes * No |
| For traumatic events: type | * Interpersonal * All potentially traumatic events |
| Trauma measure | * Information missing/not available (NA) * File/chart record * Interview   *Offender Intake Assessment*  *Interview with caretaker*   * Less-applied validated measure:   *Domestic and Community Violence Checklist (DCVC)*  *Traumatic Experiences Inventory (TEI)*  *Sexual Experiences Survey (SES)*  *Juvenile Victimization Questionnaire (JVQ)*  *The Violence, War, and Abduction Exposure Scale (VWAES)*  *Scale of Negative Family Interactions (SNFI)*   * Standard measure:   *Posttraumatic Stress Scale Interview (PSS-I)*  *Posttraumatic Stress Scale* *self-report version (PDS)*  *Posttraumatic Stress Disorder Checklist (PCL)*  *Clinician-Administered PTSD Scale (CAPS)*  *Trauma Assessment for Adults (TAA)*  *Conflict Tactics Scales (CTS)*  *Structured Clinical Interview (SCID)*  *Childhood Trauma Questionnaire (CTQ)*  *Trauma Symptom Inventory (TSI) Quickview Social History Clinical Version (QSH-C)*  *Life Event Checklist (LEC)*  *Crime-related PTSD scale for women*  *Psychiatric Diagnostic Screening Questionnaire(PDSQ)*   * Single or multiple items |
| Aggression type[[1]](#footnote-1) | * multi-type aggression * physical aggression * psychological aggression * sexual aggression * violent crime |
| Aggression measure | * Conflict Tactics Scales or variant (CTS variant) * Other standard measure   *Aggressive Behavior Questionnaire (ABQ)*  *Minnesota Multiphasic Personality Inventory-2 (MMPI-2-RF)*  *Sexual Experiences Survey (SES)*  *Lifetime History of Aggression Questionnaire*   * File record   *Official chart record*   * Less-applied validated measure   *Domestic and Community Violence Checklist (DCVC)*  *Self-Report of Aggression and Social Behavior Measure*   * Single or multiple items |
|  | * Past 3 to 12 months * Current/past relationship * Lifetime * Lifetime restricted (adulthood) |
| Assessment type predictor | * Frequency/severity * Occurrence/incidence |
| Assessment type aggression | * Frequency/severity * Occurrence/incidence |
| Effect size: Adjusted values | * Adjusted * Not adjusted |
| Quality concerns | * No * Concerns with report of summary statistics * Approximation of Cohen’s d via p-value |
| Merged effect sizes | * Merged * no |
| Summary statistics | Numerical values from reported summary statistics (e.g. mean, correlation, count data, or odds ratio) |

*Note.* DSM = Diagnostic and Statistical Manual of mental disorders, ICD = International Classification of Diseases. In case of multiple effect sizes for exposure to traumatic events within the same study (e.g. during adulthood only versus lifetime), only effect sizes for lifetime traumatic events were chosen due to the interest in the cumulative effect over the life span.

Table 2A. Detailed study description with moderator variables for all studies included.

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **First author (year)** | **Design** | **Predictor measure** | **Aggression measure** | **Aggression time** | **Assessment type** | | **Quality concerns** | **Merged** |
| **Pred.** | **Outc.** |
| 1 | **Augsburger (2015)** | CS | CM: Less-applied  PTSD: Standard | Less-applied | 3-12 months | F/S | F/S | No | No |
| 2 | **Baker (2008)** | CS | items | CTS variant | 3-12 months | I | I | No | No |
| 3 | **Burnette (2008)** | CS | items | items | Lifetime | I | I | No | No |
| 4 | **Byrd (2009)** | CS | CM: standard  TE: standard | CTS variant | Lifetime | I | F/S | No | Yes[[2]](#footnote-2) |
| 5 | **Chen (2004)** | CS | items | CTS variant | 3-12 months | I | F/S | No | No |
| 6 | **Chermack (2007)** | CS | standard | CTS variant | 3-12 months | F/S | F/S | No | No |
| 7 | Da Silva (2017) | CS | items | CTS variant | 3-12 months | I | I | No | No |
| 8 | **Felthous (1977)** | CS | *NA* | File | Lifetime | I | I | Stats | Yes[[3]](#footnote-3) |
| 9 | **Gass (2011)** | CS | *NA* | CTS variant | Relationship | I | I | No | No |
| 10 | **Gilikin (2016)** |  | CM: standard  TE: less-applied  PTSD: standard | CTS variant | Lifetime | I | F/S | Stats | Stats |
| 11 | **Goldenson (2007)** | CS | CM: *NA* PTSD: standard | File | Relationship | F/S | I | no | no |
| 12 | **Gómez (2016)** | CS | items | CTS variant | Relationship | I | I | Adj. | yes |
| 13 | Gottfried (2016)[[4]](#footnote-4) | CS | PTSD: standard  TE: items | Standard | Lifetime | F/S | F/S | No | No |
| 14 | **Harford (2014)** |  | Items | Items | Lifetime | I | I | No | No |
| 15 | **Herrenkohl (2004)** | CS | standard | CTS variant | 3-12 months | F/S | F/S | No | No |
| 16 | **Hou (2016)** | CS | items | CTS variant | 3-12 months | F/S | F/S | No | Yes[[5]](#footnote-5) |
| 17 | **Howard (2017)** | CS | All standard | items | Lifetime | F/S | I | No | No |
| 18 | **Jung (2015)[[6]](#footnote-6)** | Long. | file | items | Lifetime | I | I | No | No |
| 19 | **Kerley (2010)** | CS | items | CTS variant | 3-12 months | F/S | I | Adj./Approx. | No |
| 20 | Kirby (2012)[[7]](#footnote-7) | CS | standard | CTS variant | 3-12 months | I | F/S | No | No |
| 21 | **Langhinrichsen-Rohling (1995)** | CS | items | CTS variant | 3-12 months | I | F/S | No | No |
| 22 | **Lansford (2007)** | Long. | Interview (mother) | CTS variant;  items | 3-12 months | I | F/S | No | No |
| 23 | **Mandal (2015)** | CS | NA | CTS variant | 3-12 months | I | I | Adj./Approx. | yes[[8]](#footnote-8) |
| 24 | **Martin (2015)** | Long. | Interview | file | 3-12 months | I | I | No | No |
| 25 | **McCartan (2010)** | CS | items | File | NA | I | I | No | No |
| 26 | **Moyano (2016)** | CS | All less-applied | Standard | Lifetime restr. | I | I | No | No |
| 27 | **Murphy (2000)** | CS | Standard | CTS variant | Lifetime | F/S | F/S | No | Yes[[9]](#footnote-9) |
| 28 | **Murray-Close (2012)** | CS | Standard | Less-applied | Lifetime | F/S | F/S | No | Yes[[10]](#footnote-10) |
| 29 | Parrott (2003) | CS | Standard | CTS variant | 3-12 months | F/S | I | No | No |
| 30 | **Renner (2012)** | CS | items | File | *NA* | I | I | No | No |
| 31 | **Rosen (2001)** | CS | standard | CTS variant | Relationship | F/S | F/S | No | Yes[[11]](#footnote-11) |
| 32 | **Saile (2014)** | CS | CM: items  PTSD: standard  TE: less-applied | CTS variant | Lifetime | F/S | F/S | No | No |
| 33 | **Sansone (2012)** | CS | items | Standard | Lifetime | I | F/S | No | No |
| 34 | Scarpa (2003) | CS | Standard | Standard | Lifetime | F/S | F/S | No | No |
| 35 | **Siegel (2003)** | Long. | File | File | Lifetime restr. | I | I | No | No |
| 36 | **Simonelli (2002)** | CS | Less-applied | CTS variant | Relationship | F/S | F/S | No | Yes[[12]](#footnote-12) |
| 37 | Sippel (2011) | CS | standard | CTS variant | 3-12 months | F/S | F/S | No | No |
| 38 | Swan (2005) | CS | Standard | CTS variant | 3-12 months | F/S | F/S | No | No |
| 39 | **Topitzes (2012)** | Long. | File | File | Lifetime restr. | I | I | no | no |
| 40 | **Trabold (2015)** | CS | All standard | CTS variant | Lifetime restr.,  3 -12 months | F/S | F/S | no | yes[[13]](#footnote-13) |
| 41 | **Widom (2014)** | Long. | file | CTS variant, items | 3-12 months | I | I | no | yes[[14]](#footnote-14) |

*Note.* Study authors investigating effects of childhood maltreatment are printed in bold. CS = cross-sectional, long. = longitudinal research design. CTS = Conflict Tactics Scales; Lifetime Restr. = Lifetime restricted; F/S = Frequency/Severity, I = Incidence; Adj. = Adjusted effect size, Approx. = approximation of Cohen’s d via *p*-value.

1. Violent crime was only included if reported as separate category from other illegal actions (e.g., in contrast to substance abuse or a property offense). Robbery not considered as aggressive behavior due to its primary goal of gaining valuables in light of harming a person. Neglect (of children) was also excluded. Also, general tendencies of aggressiveness towards related to personality constructs instead of reports of aggressive acts were also not considered. [↑](#footnote-ref-1)
2. Collapsed for traumatic events (mean interpersonal and non-interpersonal, interpersonal only, and non-interpersonal only). More effect sizes for subgroups of total sample were reported but not included (except childhood-only). [↑](#footnote-ref-2)
3. Collapsed for physical abuse (mean injurious paternal and maternal punishments). [↑](#footnote-ref-3)
4. The MMPI-2 AGG-R was not included because it measures a tendency for aggression instead of aggressive acts. [↑](#footnote-ref-4)
5. Collapsed for physical abuse (mean for abuse by father and mother) and witnessed violence (mother victim and father victim). [↑](#footnote-ref-5)
6. Only the binary incidence reports were included because within-group sizes for the frequency mean scores were missing. [↑](#footnote-ref-6)
7. Only the main sample results were included because the aggression instrument for the couple-violence sample measures a tendency instead of aggressive acts. [↑](#footnote-ref-7)
8. Collapsed for witnessed violence (mean maternal; paternal, and reciprocal violence) [↑](#footnote-ref-8)
9. Collapsed for physical abuse and witnessed violence (both mean paternal and maternal). [↑](#footnote-ref-9)
10. Collapsed for psychological aggression (mean proactive and reactive relational aggression). [↑](#footnote-ref-10)
11. Collapsed for witnessed aggression (mean violence, minor, and severe physical aggression, verbal aggression) and physical abuse (mean minor, and severe abuse); and physical aggression (mean violence, minor, severe physical aggression). [↑](#footnote-ref-11)
12. Collapsed for physical abuse and emotional abuse (mean for abuse from parents, siblings for each category). [↑](#footnote-ref-12)
13. Collapsed for physical aggression (mean moderate and severe aggression) [↑](#footnote-ref-13)
14. Collapsed for physical aggression (physical aggression and physical injury) [↑](#footnote-ref-14)