**Supplementary Material**

Supplementary data A   
*Inclusion criteria*

| **Inclusion criteria** | **Justification** |
| --- | --- |
| ***Study design***  Studies that are quantitative and observational in design (e.g. cross-sectional, between group studies) will be included. | The restriction on the study design (i.e. exclusion of prospective studies) was to ensure consistency between effect size data. Available Time 1 effect size data in longitudinal studies was extracted, and intervention studies were included if baseline data was available. |
| ***Participant focus***  The mean age of the study sample was 18 years old or below. | Existing research investigating the relationship between social support and PTSD in adults has been explored (Brewin et al., 2000), and therefore it was hoped that this would be the first meta-analysis to investigate the correlation in the child literature. A cut-off age of 18 was decided as the majority of studies above this age included a large age range or reflected university/student groups which are an idiosyncratic population in itself and are therefore potentially less representative of the child and young person population and were excluded to reduce this bias. |
| Studies included a group where participants had experienced trauma, as defined by A Criterion for PTSD in either DSM-IV or DSM-V (American Psychiatric Association, 2013). | Participants had been exposed to actual or threatened death, serious injury, or sexual violence in one (or more) of the following ways:   * Directly experiencing the traumatic event * Witnessing, in person, the event as it occurred to others * Learning that the traumatic event(s) occurred to a close family member or close friend, where the event must have been violent or accidental.   Where refugee samples were reported, studies would need to report traumatic events sample exposed to.  This was to ensure consistency between trauma exposure. |
| ***Outcome data***  Studies measured social support using a self-reported, validated measure. | To reduce heterogeneity of reporting bias, the outcome data needed to be reported by children or young people. Parent or teacher reported social support or PTSD measures were excluded.  Studies reporting either total social support scale data or sources of support as sub-scale data (e.g. peer, family and/or teacher) were included. |
| PTSD symptoms are measured either by a quantitative questionnaire measure or diagnostic clinical interview. This questionnaire must demonstrate adequate reliability and validity with such psychometric properties documented in peer-reviewed journals. | To ensure that questionnaires are measuring PTSD symptoms appropriately the measure must consider intrusions, avoidance and hyperarousal. Measures which only assess avoidance and intrusion (e.g. Impact of Event-Scale; Wolfe, 2002) will be excluded. Where studies used both a self-report measure and a clinical interview, data pertaining to the self-report questionnaire was extracted to reduce heterogeneity. |
| PTSD measure must have been administered at least four weeks after trauma. | To ensure that the measure was assessing PTSD, rather than acute stress disorder and to avoid natural and transient distress responses in the first four weeks after trauma exposure. |
| Studies report information required to calculate effect size:   * Pearson *r* * Means and Standard Deviations * Odds Ratio * Cohen’s d effect size * F-Test Statistics * Regression (e.g. Beta coefficients) | To ensure that outcomes can be transformed into an effect size. |
| ***Type of article***  Studies were reported in English | Due to limited resources translation services were unavailable. |
| The following article types were excluded: qualitative/ validation of psychometric scales/ reviews/ commentaries | These articles do not provide the outcome data needed for this meta-analysis. |

Supplementary data B  
*Quality assessment criteria*

| **Domain** | **Details** | **Low Risk**  **(study designed or conducted in a way to minimise the risk of bias)** | **Unclear Risk**  **(not clear from the way the study reported)** | **High Risk**  **(aspects of study in which significant sources of bias may persist)** |
| --- | --- | --- | --- | --- |
| **Selection Bias** | Aim: to assess how well the population was described.  Selection bias in epidemiological studies occurs when there is a systematic difference between the characteristics of those selected for the study and those who are not.  For example:  Is trauma (exposure) clearly described?  Do they explain why certain schools were selected? | Non-response rate is reported and of an acceptable level (set at 50%).  The characteristics of the study population are clearly described and without evidence of bias. The study reports the characteristics of the sample e.g. the study details subgroups.  The recruitment method is clearly reported and well defined (e.g. school, hospitals) | Non-response rate is not reported.  The characteristics of the study population are not clearly reported. For example, the country, setting, location, population demographics were not adequately reported. Further to this, details related to trauma were not adequately reported.  The recruitment process/ sampling method of individuals are unclear or has not been reported. | Includes an unacceptable (reporting 30% or less data) level of non-response rate.  The characteristics of the study population are not reported.  Target sampling was used i.e. population-based surveys. |
| **Performance Bias** | Performance bias in correlation studies refers to exposure to factors that may influence their responses. Information is provided in a way that does not create a Hawthorne effect (altering their behaviour to influence results). | Study reports level of confidentiality and anonymity. Participants were not rewarded for their participation in the study, or small gift of appreciation was offered.  Informed consent is obtained and described.  Participants were provided with support to complete the questionnaires, if needed. | The study does not report levels of confidentiality and anonymity. It is not clear if participants were rewarded for their participation (e.g. motivation to respond in a certain way).  It is unclear how much information was provided to the participant prior to taking part in the study | Responses are not confidential or anonymous.  As entry to services participants were rewarded for their participation in the study, for example were provided with large monetary gifts.  Less relevant - Participants were told which condition/ what questionnaires they were completing and why and any proposed hypotheses. |
| **Detection Bias** | Aim: to assess the quality of the PTSD and social support measures and the design of the study  Detection bias refers to whether the design of the study is optimised to detect the effect in question. Ratings of design bias shown therefore reflect the position of the study design within the hierarchy of possible designs, with less optimal designs receiving some penalty. | The outcome measures are clearly defined, valid and reliable, and are implemented consistently across all participants.  Validated measures of PTSD such as PTSD Checklist, Reaction Index, CPSS. Study reports Cronbach alpha 0.7 and above.  Validated measures of Social support such as social support scale, MDPSS, PSS. Study reports Cronbach alpha 0.7 and above.  Reports category boundaries when continuous measures used.  Describes how the measures were translated or validated for participants i.e. addresses cultural bias. | Information regarding the outcome measures are either not reported or not clearly reported e.g. definition, validity, reliability. It is not clear if the measure was implemented consistently across all participants. Cronbach's Alpha is between 0.6 and 0.7.  Unclear how measures are translated. | The outcome measures were implemented differently across participants.  The outcome measures used had poor reliability and validity reported e.g. Cronbach's Alpha below 0.6.  Only using one dimension/ subscale of the scale or separating the subscales/ dimensions in the analysis.  Discrepancies with how the measures were administered between participants i.e. translated for some participants, not others. States that it has been translated but does not detail how this was conducted or address problems in translation. |
| **Statistical Bias** | Aim: to assess the quality of the correlation  Bias resulting from the (inappropriate) statistical treatment of the data. Indicate if appropriate statistical methods used, including complex methods for correlated data. | Appropriate statistical testing was used.  The study has reported a Pearson’s value or the statistic can be transformed into a statistical equivalent. (E.g. Cohens d, OR, M&SD). Authors report raw data and descriptive statistics, and/or univariate data available. | Unclear what statistical test was used.  Appropriate statistical test was used but the statistic cannot be transformed into a Pearson's value. | Statistics were not reported. Regression coefficient reported where a number of variables are included in the analysis and/or authors only report significant findings.  Data needs reversing due to social support scale measuring social support differently. |
| **Reporting Bias** | Aim: to assess the ‘within-study publication bias’  Reporting bias refers to systematic differences between reported and unreported findings. Within a published report those analyses with statistically significant correlations are more likely to be reported. This sort of ‘within-study publication bias’ is usually known as outcome reporting bias or selective reporting bias and may be one of the most substantial biases affecting results from individual studies (Chan 2005). | Reported all results of measures as outlined in the method. | Not all descriptive and/or summary statistics are presented. There is a description (narrative) in the results but do not record statistics. | Not reported full outcome measures that are stated in the method section/ reported only a subsample of results/only significant results/ not reported the measure as it should be.  Authors only report significant findings.  Authors report analysis of subgroups only (i.e. not total social support score) |
| **Generalisability** | Generalisability describes the extent to which research findings can be applied to settings other than that in which they were originally tested. This includes any differences between the study participants and those persons to whom the review is applicable.  **Note: IPV trauma (e.g. sexual abuse) is likely to be based on smaller sample sizes, non IPV (e.g. earthquakes) will be larger sample sizes. Shouldn’t penalise for this.** | Sufficient sample for generalisation and representative of target population.  A sample size justification, estimate and power analysis was provided.  The sample size is adequate to detect an effect.  **External validity – generalisable to the population they are measuring.** | Sufficient sample for generalisation but with some idiosyncratic features.  A sample size justification, estimate and power analysis were not provided | Small sample with or without idiosyncratic feature.  The sample size is not adequate to detect an effect. |

Supplementary data C  
*Quality criteria for each primary study*

| **Author** | ***Selection Bias*** | ***Performance Bias*** | ***Detection Bias*** | ***Statistical Bias*** | ***Reporting Bias*** | ***Generalisability*** | ***Quality Index*** |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Al-Krenawi et al |  |  |  |  |  |  | 29% |
| Alix et al (2017) |  |  |  |  |  |  | 50% |
| Aydin et al (2016) |  |  |  |  |  |  | 57% |
| Banks et al (2014) |  |  |  |  |  |  | 86% |
| Ben-Zur et al (2013) |  |  |  |  |  |  | 64% |
| Berman et al (1996) |  |  |  |  |  |  | 50% |
| Bernard-Bonnin (2008) |  |  |  |  |  |  | 14% |
| Bokszczanin (2008) |  |  |  |  |  |  | 86% |
| Bountress et al (2017) |  |  |  |  |  |  | 57% |
| Boyraz et al (2015) |  |  |  |  |  |  | 36% |
| Brown et al (2003) |  |  |  |  |  |  | 50% |
| Cohen et al (2016) |  |  |  |  |  |  | 92% |
| Dawson et al (2014) |  |  |  |  |  |  | 29% |
| Derivois et al (2014) |  |  |  |  |  |  | 58% |
| Dorinson (2012) |  |  |  |  |  |  | 58% |
| Durakovic-Belko et al (2003) |  |  |  |  |  |  | 42% |
| Freh (2016) |  |  |  |  |  |  | 100% |
| Guerra et al (2018) |  |  |  |  |  |  | 33% |
| Jia et al (2015) |  |  |  |  |  |  | 100% |
| Jones (2007) |  |  |  |  |  |  | 50% |
| Kasler et al (2008) |  |  |  |  |  |  | 67% |
| Khamis (2008) |  |  |  |  |  |  | 75% |
| La Greca (2010) |  |  |  |  |  |  | 42% |
| Lai et al (2018) |  |  |  |  |  |  | 50% |
| Llabre & Hadi (1997) |  |  |  |  |  |  | 64% |
| Ma et al (2011) |  |  |  |  |  |  | 100% |
| McQuaid (2005) |  |  |  |  |  |  | 43% |
| Meiser-Stedman (2019) |  |  |  |  |  |  | 67% |
| Moore & Varela (2009) |  |  |  |  |  |  | 42% |
| Morley & Kohrt (2013) |  |  |  |  |  |  | 33% |
| Munzer (2017) |  |  |  |  |  |  | 75% |
| Paul et al (2015) |  |  |  |  |  |  | 50% |
| Paxton et al (2004) |  |  |  |  |  |  | 50% |
| Pinto et al (2017) |  |  |  |  |  |  | 92% |
| Ponnamperuma & Nicolson (2016) |  |  |  |  |  |  | 100% |
| Qin et al (2016) |  |  |  |  |  |  | 67% |
| Rosario et al (2008) |  |  |  |  |  |  | 42% |
| Schiff (2010) |  |  |  |  |  |  | 75% |
| Sleijpen et al (2016) |  |  |  |  |  |  | 58% |
| Stansfeld et al (2017) |  |  |  |  |  |  | 83% |
| Stuber et al (1997) |  |  |  |  |  |  | 33% |
| Tang et al (2010) |  |  |  |  |  |  | 43% |
| Thabet et al (2009) |  |  |  |  |  |  | 58% |
| Thompson (1999) |  |  |  |  |  |  | 36% |
| Tian et al (2014) |  |  |  |  |  |  | 67% |
| Vernberg et al (1996) |  |  |  |  |  |  | 83% |
| Wang et al (2018) |  |  |  |  |  |  | 58% |
| Xiao et al (2016) |  |  |  |  |  |  | 83% |
| Yuan et al (2018) |  |  |  |  |  |  | 75% |
| Zhou et al (2018) |  |  |  |  |  |  | 67% |

= High Risk

= Unclear Risk

= Low Risk

Supplementary Data D  
*Graph representing the percentage change in effect size when each primary study is omitted from analysis*

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