

Child Protection Evidence

Systematic review on

Teenage Neglect

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Summary

This review uses a ‘rapid review’ methodology to evaluate the scientific literature the self-reported features of adolescents aged 13 – 17 completed years who are experiencing any form of neglect including physical, emotional, supervisory, medical, educational or nutritional and / or emotional maltreatment (EM) published up until **March 2014** and reflects the findings of eligible studies. The review aims to answer the following clinical question:

- What are the self-reported or self-rated features of a child (13-17 completed years) currently experiencing neglect and/or emotional maltreatment in OECD countries?

Key findings:

- Neglect is the most common form of child abuse, but frequently goes unrecognised within the adolescent population. In a survey of children aged 11-17 in the UK, 13.4% described severe maltreatment¹. Although much emphasis is placed on the maltreatment of younger children, in a study of serious case reviews in the UK 18% of those fatally or seriously maltreated were older than 14 years². There is increasing recognition of the prevalence of emotional abuse and this is the second most common reason for children to be placed on the child protection register in the UK³ and the third most common reason in the US⁴.

Background

This review uses a ‘rapid review’ methodology to evaluate the scientific literature the self-reported features of adolescents aged 13 – 17 completed years who are experiencing any form of neglect including physical, emotional, supervisory, medical, educational or nutritional and / or emotional maltreatment (EM) published up until March 2014 and reflects the findings of eligible studies. The review aims to answer the following clinical question:

1. What are the self-reported or self-rated features of a child (13-17 completed years) currently experiencing neglect and/or emotional maltreatment in OECD countries?

Methodology

Due to a number of constraints, particularly time, it was decided that a rapid systematic review using streamlined methods would be conducted for this particular review. This review uses systematic review techniques⁵ whilst employing limits in several areas for speeding up the process, including using a narrow research question, limiting the search dates, and reducing the number of databases searched.

We performed an English language literature search of original articles published since 1990. The initial search strategy was developed across OVID Medline databases using keywords and Medical Subject Headings (MeSH) and was modified appropriately to search the remaining bibliographic databases. The search sensitivity was improved by supplementary searching of key journals and references of all included full-text articles. See [Appendix 1](#) for full methodology including search strategy and inclusion criteria.

Potentially relevant underwent full text screening and critical appraisal. To ensure consistency, ranking was used to indicate the level of confidence that abuse had taken place and also for study types.

Findings of clinical question 1

What are the self-reported or self-rated features of a child currently experiencing neglect and/or emotional maltreatment in OECD countries?

- 19 publications addressed this question⁶⁻²⁴
- Four different study populations had multiple publications recording different features as follows:
 - Goldstein 2011 & Wekerle 2009^{7,22}
 - James 2009, Traube 2012 & Tyler 2008^{9,18,19}
 - McGee 1995, McGee 1997 & McGee 2001¹¹⁻¹³
- McMillen 2005 & Vaughn 2007^{14,20}
- Age: This review included children aged 11-20 but the majority of studies addressed children with a mean age between 14.5 and 16.9 years
- Gender: One study explored the impact of gender on dating violence²², whilst one study identified gender effects between delinquency and neglect, and also school performance¹⁹. Another gender effect was seen between internalising features and neglect which was only present for girls and not boys^{12,13}

Influence of ethnicity and socio-economic group

All six comparative studies matched or controlled for ethnicity^{6,8,17,21,22,24}, and five out of the six matched or controlled for socio-economic status^{6,8,17,22,24}.

1.1 Emotional features

Neglect

Ten studies (13 publications) addressed emotional features for neglected adolescents^{7,8,10-15,17,19,21,22,24} (overlapping data between^{7&22} and¹¹⁻¹³).

Nine different tools were used to assess emotional features: of these Youth Self-Report and Trauma Symptom Checklist were the most commonly used.

Internalising features (depression / anxiety / withdrawn / somatic complaints_

We also included self-esteem, symptoms of Post-Traumatic Stress Disorder (PTSD) and suicidality within this section):

- Nine studies (12 publications)^{7,8,10-15,17,21,22,24} explored these features in relation to neglect. The majority of studies identified an association between neglect and internalising features
- Two comparative studies^{22,24} identified that neglected adolescents exhibit more internalising features than controls; one of these specifically explored the relationship to physical neglect²²
- A cross-sectional study of adolescents entering out-of-home care showed no association with internalising features¹⁴
- Four out of five non-comparative articles confirmed the association between internalising features and neglect^{7,11-13}. In two of these the association was only present for girls and not for boys^{12,13}
- One study did not confirm any association¹⁵

Self-esteem

- Two non-comparative studies exploring self-esteem among neglected adolescents entering out-of-home care found no association^{8,10}
- One found that no association between self-esteem and neglect was identified over a six month period(3). This study included a variety of forms of maltreatment and it was evident that a lower initial self-esteem score was related to a higher rate of improvement overall

Depression

- Four studies explored depression in relation to neglect^{8,14,17,21}
- While the results were mixed, three out of the four studies showed an association between neglect and depression^{8,17,21}

- Two longitudinal studies explored depression among neglected adolescents; one of these showed an increased risk of depression before the age of 15 which was not apparent over 16 years¹⁷. While there was no initial link between neglect and depression, over a 6 month period the neglected adolescents showed less improvement in their depression scores than other maltreatment groups⁸. In both studies, these young people were assessed while remaining in out-of-home care
- A case-series showed that the neglected adolescents did exhibit depression although this was less severe than found with other forms of maltreatment²¹
- A cross-sectional study, also looking at children in out-of-home care, found no association between physical neglect and depression¹⁴

Suicidal ideation

- One study of adolescents aged 16 years who were either at risk of maltreatment or who had been maltreated showed no association between suicidal ideation and neglect¹⁵

Symptoms of PTSD

- The neglected adolescents did exhibit PTSD symptoms, although these were less severe than in other forms of maltreatment²¹

Externalising features (aggression / hostility / delinquent behaviour)

- Five studies (7 publications) addressed the relationship between neglect and externalising behaviour^{10-14,17,19}
- One comparative study did highlight an association between adolescent neglect and delinquent behaviour over the age of 16 years¹⁷
- A longitudinal study of adolescents found an association between neglect and delinquency for boys but not for girls¹⁹
- A cross-sectional assessment of adolescents found no association between neglect and a tool measuring lying and cheating¹⁰
- One study found an association between neglect and oppositional conduct disorder, but the relationship was mitigated by gender, ethnicity and living situation¹⁴
- Two studies found no association between neglect and externalising features^{12,13}. Of interest in one study with substantiated neglect, 29.4% of adolescents denied being neglected and overall describe their experience of neglect being less severe than the agencies' reports¹³
- One study explored mediators and moderators of the impact of neglect and noted that those who blamed themselves had higher associations with emotional features. Those who blamed the parent who neglected them and were self-excusing, experienced less emotional features of neglect and this was more strongly correlated among boys than girls¹¹

Emotional maltreatment

- Five studies (seven publications) addressed emotional features for emotionally maltreated adolescents^{7,10,12,13,15,22,23} (overlapping data between^{7&22} and^{12&13})
- Four different tools were used to assess emotional features: the Trauma Symptom Checklist was the most commonly used

Internalising features (depression / anxiety / withdrawn / somatic complaints.

We also included self-esteem, symptoms of Post-Traumatic Stress Disorder (PTSD) and suicidality within this section)

- Five studies (seven publications)^{7,10,12,13,15,22,23} explored these features in relation to emotional maltreatment. The majority of studies identified an association between emotional maltreatment and internalising features
- One comparative study found the emotionally abused adolescents experienced more internalising symptoms²². This was supported by non-comparative studies of emotional maltreatment^{7,12,13,23}
- In girls with multiple forms of maltreatment, the presence of psychological maltreatment increased the association of internalising features¹¹
- Emotionally maltreated adolescents showed the most significant rates of internalising features within all forms of maltreatment¹³

Self-esteem

- Self-esteem was not significantly impacted by emotional maltreatment¹⁰

Suicidal ideation

- Amongst adolescents who experienced psychological abuse, suicidal ideation was significantly more common (OR 3.66, 95%, CI 1.80-7.44)¹⁵. The impact of psychological abuse on suicidal ideation was mediated by psychological distress and risky behaviour

Externalising features (aggression / hostility / delinquent behaviour)

- Two studies (three publications) addressed the relationship between emotional maltreatment and externalising behaviour^{10,12,13}
- These studies were non-comparative; one study showed an association between emotional maltreatment and externalising features^{12,13}, whilst the other did not¹⁰
- There was no gender association between externalising features and psychological maltreatment

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1.2 Risky behaviour

Substance use

Four studies addressed risky behaviours in neglected or emotionally maltreated adolescents relating to alcohol, tobacco or substance misuse^{6,17,18,20}; only two of these studies were comparative with non-maltreated controls^{6,17}.

Five different tools were used in these studies, although only two of these tools were previously validated; Diagnostic Interview Schedule for Children & Adolescents, Diagnostic Interview Schedule for DSM-IV (modified).

- Four studies explored the use of marijuana, cocaine, crack, heroin, amphetamines, hallucinogens or multiple drug use. In two comparative studies, substance misuse was more common amongst neglected adolescents than controls^{6,17}
- This was not supported by two non-comparative studies where current and lifetime substance misuse was no higher amongst the neglected adolescents than those with other forms of maltreatment^{18,20}. In the latter two studies the adolescents were either involved with child welfare or in residential care which may have potentially influenced their responses
- Among three studies examining alcohol and tobacco use^{17,18,20} one comparative study did identify that neglected adolescents were significantly more likely to exhibit alcohol related problems¹⁷
- The two non-comparative studies of young people in out-of-home care or involved with child welfare did not show any association between alcohol and tobacco use and neglect^{18,20}
- One comparative study found no association between emotional maltreatment and substance misuse⁶
- A non-comparative study found no difference in substance misuse amongst emotionally maltreated adolescents in comparison to those experiencing other forms of maltreatment¹⁷

Sexual Risk Taking Behaviour

Two studies^{9,17}, explored the effects of neglect on sexual risk taking behaviour; only one of these studies was comparative¹⁷. No study explored the impact of emotional maltreatment on sexual risk taking behaviour.

No standardised tools were used in either of these studies.

- There was only a small sample size of relevance in the comparative study (34 neglected, 4 emotionally abused adolescents) but this showed that neglect was associated with an increased rate of teenage pregnancy¹⁷
- In a study of neglected youth compared to other forms of maltreatment, there was no explicit association with teenage pregnancy. However it is notable that 35% of neglected youth were aged less than 13 years at first “consensual” intercourse, and 65% had first “consensual” intercourse between the ages of 13 and 16 years⁹

Other risk taking behaviour

Two non-comparative studies^{10,15} explored the effects of neglect and emotional maltreatment on risk taking behaviour.

Two different tools were used; Child Health and Illness Profile – Adolescent Information was used in one study¹⁰, whilst an Index derived from LONGSCAN measures was used in the second¹⁵.

- One study explored gang activities, arrest, physical assault, in addition to illicit substance misuse and unprotected sex and combined these all into one measure of “risky behaviour”¹⁵. This study found an association between either neglect or emotional maltreatment and “risky behaviour”
- In the other study, the tool which was used measured characteristics and risky behaviours which increased the risk of illness and injury; no association was found between this and either neglect or emotional maltreatment¹⁰
- It is notable that Thompson et al was a much larger study with 75 neglected adolescents and 258 emotionally abused¹⁵; Kools et al had 56 neglected and 29 emotionally abused adolescents¹⁰

1.3 Interpersonal relationships

Neglect

- Four studies evaluated the impact of neglect on interpersonal relationships^{10,19,22,24}
- Five different tools were used within these studies

Dating violence

- Only one non-comparative study explored dating violence; this found that physical neglect was predictive of higher dating violence victimisation in boys²²

Peer influence

- One study explored the association between neglect and peer influence on risk taking, finding no association¹⁰

Family engagement

- One study observed that the neglected adolescents were more likely to describe difficulties with their family relationships than non-neglected youth, with lower family cohesion and more daily stress²⁴, whilst another study reported that neglect was not associated with family involvement¹⁰

General victimisation

- In a study of general victimisation, neglected girls were significantly more likely to experience victimisation, whereas neglected boys were not¹⁹

Emotional maltreatment

- Three non-comparative studies explored the impact of emotional maltreatment on interpersonal relationships^{10,22,23}

Dating violence

- Two studies examined emotional maltreatment and dating violence and both showed a positive association^{22,23}
- One study observed that emotional abuse significantly predicted male victimisation and perpetration of dating violence; the dating violence perpetration was mediated by PTSD symptomatology²²
- The data relating to girls could not be analysed as the information relating to emotional abuse was combined with physical abuse data²²
- The second study found that the emotionally abused adolescents had higher dating violence victimisation but no specific association to perpetration²³

Family engagement

- One study found that adolescents experiencing emotional abuse experienced lower levels of family engagement¹⁰

1.4 General health and wellbeing

Four studies evaluated the impact of neglect or emotional maltreatment on the impact of general health and wellbeing; one of which was comparative²⁴ and three were non-comparative^{10,15,19}.

A different tool was used for each study:

- Two studies found an association between neglect and general health and well-being measures^{15,19}. A further two studies found no association between neglect and general health and well-being^{10,19}
- One study found that the neglected adolescents had higher levels of daily stress than the non-maltreated controls²⁴
- Another study found that neglect was significantly associated with low positive social and achievement expectations¹⁵
- Two studies exploring emotional maltreatment and general health and well-being had conflicting results^{10,15}
- One study found that psychological abuse was significantly associated with negative social expectations¹⁵
- One study exploring 29 emotionally abused adolescents found no association with general health and well-being¹⁰

1.5 School engagement

Three studies looked at the relationship between neglect or emotional maltreatment and school engagement^{10,17,19}. Only one of these studies was comparative¹⁷.

Three different tools were used in these studies.

- One study observed that neglected children were no more likely to drop out of school than their non-maltreated peers¹⁷
- Another study found that neglected boys had greater school engagement whilst neglected girls were less engaged at school¹⁹
- One study evaluating academic achievement found no association between this and neglect¹⁰
- Only one study evaluated emotional maltreatment and academic performance and found no association¹⁰

1.6 Implications for practice

- Although neglect and emotional maltreatment in adolescents is often under-recognised, it is clear that it has a significant impact on young peoples' emotional state, well-being and interactions with others

- The level of self-reported features identified in this review highlights the importance of asking adolescents themselves about their experiences and problems they may be experiencing, including suicidal ideation, dating violence, etc.
- It is evident that emotional maltreatment in adolescents can be particularly harmful, although it is potentially misinterpreted when the children exhibit aggression, delinquency and anti-social behaviour

1.7 Research implications

- There is a need for more large scale comparative studies between neglected or emotionally maltreated adolescents and non-maltreated peers, particularly with regard to risk taking behaviours and school engagement
- Studies that explicitly explore the impact of emotional abuse as distinct from other forms of maltreatment would be of benefit
- Future studies should use previously validated measures in order to allow for meaningful comparison between studies

1.8 Limitations of review findings

- This was a Rapid Systematic Review and thus was limited to studies of self-reported features by adolescents. There is clearly a large body of evidence relating to observations by others of the young peoples' behaviour which were not analysed in this review
- There were few comparative studies with non-maltreated peers
- All of the studies that met our criteria were from North America and thus results may not be generalisable to other populations
- Although we sought to include only those adolescents who were currently experiencing neglect or emotional maltreatment, for many this may have been a continuation of maltreatment in earlier childhood
- Unfortunately, the authors chose to use a wide variety of tools, often modified for the purpose of the study, or used new un-validated tools, thus precluding a meta-analysis

Related publications

No additional material published arising from the teenage neglect review.

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Appendix 1 – Methodology

Due to a number of constraints it was decided that a rapid systematic review using streamlined methods would be conducted for this particular review. A traditional systematic review attempts to focus on a research question and tries to identify, appraise, select and synthesize all high quality research evidence relevant to that question. Although systematic reviews can be thought of as the gold standard of knowledge synthesis within research, they do have limitations, the main one being the length of time it can take to conduct a systematic review. They typically require anything from six months up to a number of years to complete, in addition to being heavy on resource personnel. Consequently rapid reviews have emerged as an efficient approach to synthesizing evidence; however whilst there are documented criteria^{25,26}, there isn't an accepted or standardised methodology for these²⁷. Therefore, when designing this review we decided to use systematic review techniques⁵ whilst employing limits in several areas for speeding up the process, including using a narrow research question, limiting the search dates, and reducing the number of databases searched.

We performed an English language literature search of original articles published since 1990. The initial search strategy was developed across OVID Medline databases using keywords and Medical Subject Headings (MeSH) and was modified appropriately to search the remaining bibliographic databases. The search sensitivity was improved by supplementary searching of key journals and references of all included full-text articles.

We limited our search strategy to Organisation for Economic Co-operation and Development (OECD) populations due to similarities in culture and patterns of health status. Identified articles, once scanned for duplicates and relevancy, were transferred to a purpose-built Microsoft Access database to coordinate the review and collate critical appraisal data. Where applicable, authors were contacted for primary data and confirmation of information, such as data duplication across publications, age range of subjects or the confirmation of neglect / EA as appropriate. Abstracts of studies were scanned for eligibility by the lead researcher and selected for further review.

Articles were screened by two reviewers to determine relevance according to eligibility criteria. Where there was disagreement, a third reviewer decided on eligibility. The remaining studies then underwent full data extraction and critical appraisal by one reviewer, with independent verification by a second, using standardised data extraction and critical appraisal forms based on criteria defined by the National Health Service's Centre for Reviews and Dissemination⁵ and systematic review advisory guidance²⁸⁻³². In order to complete the review in a timely manner, the articles were reviewed only by child protection researchers, experienced in critical appraisal.

We included all primary studies addressing neglect and/or emotional abuse in adolescents aged 13-17 years, which was substantiated by child protection processes, with self-reporting data relating to emotion, wellbeing, and social behaviour.

Many authors combine emotional neglect and emotional abuse since, in practice, these descriptions appear concurrently, and this acknowledges the broader term of ‘psychological maltreatment’ as defined by the American Professional Society on the Abuse of Children (1995)³³. Among international definitions of neglect and emotional abuse, we opted for those of the World Health Organization, as follows:

- Neglect is defined as: “Neglect refers to the failure of a parent to provide for the development of the child – where the parent is in a position to do so – in one or more of the following areas: health, education, emotional development, nutrition, shelter and safe living conditions. Neglect is thus distinguished from circumstances of poverty in that neglect can occur only in cases where reasonable resources are available to the family or caregiver.”³⁴
- Emotional abuse is defined as: “Emotional abuse includes the failure of a caregiver to provide an appropriate and supportive environment, and includes acts that have an adverse effect on the emotional health and development of a child. Such acts include restricting a child’s movements, denigration, ridicule, threats and intimidation, discrimination, rejection and other non-physical forms of hostile treatment.”³⁴
- In the absence of an identifiable UK / World definition of educational neglect, we developed our own for the purposes of the review:

Educational neglect involves one or more of the following: The parent or caregiver’s –

- Failure to enrol a child of mandatory school age in school
- Failure to comply with state requirements regarding school attendance
- Failure to access / provide appropriate home schooling
- Failure to avail of recommended special educational provision
- Failure to cooperate with treatment if the child is experiencing mental, emotional or developmental problems associated with school, and treatment is offered
- Failure to show an interest in the child’s education at school and support their learning
- Failure to provide a stimulating environment
- Repeatedly keeping the child at home, thus failing to comply with state requirements
- Allowing the child or youth to engage in chronic truancy

Inclusion criteria

Inclusion	Exclusion
Children aged 13-17 completed years	Studies of physical or sexual abuse alone, or studies combining physical or sexual abuse and neglect / emotional abuse, where the data from the neglect/ emotional abuse cases could not be extracted
Self-reported or self-rated features of the impact of neglect/emotional abuse on the child during the period of exposure to neglect/emotional abuse	Studies which do not contain data that was self-reported / rated by the child experiencing neglect – either exclusively or where relevant data that was self-reported / rated cannot be extracted
Confirmed cases of neglect / emotional abuse (<i>A-B Quality Standards for Confirmation of Neglect / Emotional Abuse</i>)	Studies of management or complications of neglect
Studies conducted in Organisation for Economic Co-operation and Development countries	Studies addressing outcomes of neglect
	Studies with no data or documentation relating to the impact on the child (emotional, behavioural, psychological, developmental)
	Single case studies or case series of fewer than three cases, formal consensus articles, expert opinions, personal practice, review articles, systematic reviews
	Neglect / emotional abuse defined by unreferenced criteria / tool, not specified in our standards (<i>D Quality Standards for Confirmation of Neglect / Emotional Abuse</i>)

Confirmation of neglect

Ranking	Quality standards for confirmation of neglect / emotional abuse
A1	Neglect / emotional abuse confirmed at child protection case conference, multi-disciplinary assessment, including social services or Court proceedings, or admitted by the perpetrator or independently witnessed
A2	Diagnosis of neglect / emotional abuse by clinical psychologist, psychiatrist or other mental health specialist
B	Neglect / emotional abuse defined by referenced criteria / tool designed to confirm neglect /

	emotional abuse (i.e. not a tool determining potential neglect)
C	Neglect / emotional abuse defined by unreferenced criteria / tool
D	No supporting detail

Search strategy

The below table presents the search terms used in the 2014 Medline database search for teenage neglect, truncation and wildcard characters were adapted to the different databases where necessary.

<p>exp Adolescent/ exp Minors/ exp Young Adult/ (young adult* or young person or adolescen* or teen* or youth* or minor* or juvenile).tw. (middle school or junior high school or high school or secondary school).tw. (high school or school leaver* or drop out or child*).tw. (maltreat* adj neglect*).tw. neglect*.mp. (abus* adj neglect*).tw. (neglect* adj2 behavior).mp. ((psychologic* or emotion*) adj3 (maltreat* or mistreat* or deprive* or ignor*)).mp. ((social* or emotional* or psychosocial* or contact or psychological*) adj3 (deprived or deprivation)).tw. ((psychologic* or emotion*) adj (neglect* or harm or abuse or trauma or depriv*)).tw.</p>	<p>((neglect* or ignore or deprive*) adj1 (psychologic* or emotion*)).tw. (neglect* adj3 (adoles* or teen*)).tw. (self adj (report* or concept or perception or perceive or perceived or rate or rating)).tw. Self Concept/ self-report.mp. (self adj3 (surveys or questionnaire*)).tw. exp Questionnaires/ exp Self Report/ exp Self Disclosure/ scale.tw. inventory.mp. Checklist/ checklist.mp. tool.mp. Interview*.mp. survey.mp. self administer*.mp.</p>
<p>Search Limits</p> <p>(Algeria\$ or Egypt\$ or Liby\$ or Morocc\$ or Tunisia\$ or Western Sahara\$ or Angola\$ or Benin or Botswana\$ or Burkina Faso or Burundi or Cameroon or Cape Verde or Central African Republic or Chad or Comoros or Congo or Djibouti or Eritrea or Ethiopia\$ or Gabon or Gambia\$ or Ghana or Guinea or Kenya\$ or Lesotho or Liberia or Madagascar\$ or Malawi or Mali or Mauritania or Mauritius or Mayotte or</p>	

Mozambique\$ or Namibia\$ or Niger or Nigeria\$ or Reunion or Rwanda\$ or Saint Helena or Senegal or Seychelles or Sierra Leone or Somalia or South Africa\$ or Sudan or Swaziland or Tanzania or Togo or Uganda\$ or Zambia\$ or Zimbabwe\$ or China or Chinese or Hong Kong or Macao or Mongolia\$ or Taiwan\$ or Belarus or Moldova\$ or Russia\$ or Ukraine or Afghanistan or Armenia\$ or Azerbaijan or Bahrain or Cyprus or Cypriot or Georgia\$ or Iran\$ or Iraq\$ or Israel\$ or Jordan\$ or Kazakhstan or Kuwait or Kyrgyzstan or Lebanon\$ or Oman or Pakistan\$ or Palestine\$ or Qatar or Saudi Arabia or Syria\$ or Tajikistan or Turkmenistan or United Arab Emirates or Uzbekistan or Yemen or Bangladesh\$ or Bhutan or British Indian Ocean Territory or Brunei Darussalam or Cambodia\$ or India\$ or Indonesia\$ or Lao or People's Democratic Republic or Malaysia\$ or Maldives or Myanmar or Nepal or Philippines\$ or Singapore or Sri Lanka or Thailand\$ or Timor Leste or Vietnam or Albania\$ or Andorra or Bosnia\$ or Herzegovina\$ or Bulgaria\$ or Croatia\$ or Estonia or Faroe Islands or Greenland or Liechtenstein or Lithuania\$ or Macedonia or Malta or Maltese or Romania or Serbia\$ or Montenegro or Slovenia or Svalbard or Argentina\$ or Belize or Bolivia\$ or Brazil\$ or Chile or Chilean or Colombia\$ or Costa Rica\$ or Cuba or Ecuador or El Salvador or French Guiana or Guatemala\$ or Guyana or Haiti or Honduras or Jamaica\$ or Nicaragua\$ or Panama or Paraguay or Peru or Puerto Rico or Suriname or Uruguay or Venezuela or developing countries\$ or South America\$).ti,sh.

limit to (english language and humans and yr="1990 – 2014")

Databases searched

Eight databases were searched together with hand searching of particular journals and websites. A complete list of the resources searched can be found below.

Databases	Time period searched
ASSIA (Applied Social Sciences Index and Abstracts)	1990 – March 2014
EMBASE (Excerpta Medica)	1990 – March 2014
MEDLINE	1990 – March 2014
MEDLINE In-Process & Other Non-Indexed Citations	1990 – March 2014
PsycINFO	1990 – March 2014
PubMed E-Publications	1990 – March 2014
SCOPUS	1990 – March 2014
Web of Science: Social Sciences Citation Index	1990 – March 2014
Journals 'hand searched'	Time period searched
Child Abuse & Neglect	-
Child Abuse Review	-
Child Maltreatment	-
Development & Psychopathology	-

Pre-review screening and critical appraisal

Papers found in the database and hand searches underwent three rounds of screening before they were included in this update. The first round was a title screen where papers that obviously did not meet the inclusion criteria were excluded. The second was an abstract screen where papers that did not meet the inclusion criteria based on the information provided in the abstract were excluded. In this round the pre-review screening form was completed for each paper. These first two stages were carried out by clinical experts. Finally a full text screen with a critical appraisal was carried out by members of the clinical expert sub-committee. Critical appraisal forms were completed for each of the papers reviewed at this stage. Examples of the pre-review screening and critical appraisal forms used in previous reviews are available on request (clinical.standards@rcpch.ac.uk).