

PROSPERO International prospective register of systematic reviews

Systematic review of the psychometric properties of measures for child abuse and neglect

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Citation

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Review question(s)

- 1) What instruments to measure child abuse victimisation and adverse childhood experiences exist?
- 2) What are the psychometric properties of the identified measures?
- 3) Are the measures suitable for use in social surveys and intervention studies?
- 4) What is the acceptability and functionality of the measure across contexts?

Searches

The following databases will be searched: PsycINFO, MEDLINE, Embase, Global Health, ProQuest and Social Sciences Citation Index. The searches will span the time frame from the inception of the database until April 2017.

Direct searches will be carried out in the key academic journals reporting on empirical research into child abuse and neglect: Child Abuse Review, Child Abuse and Neglect and Child Maltreatment. Further, abstract books of the international and regional conferences of the International Society for the Prevention of Child Abuse and Neglect (ISPCAN) and of the International Society for Child Indicators (ISCI) will be directly searched.

In addition to the above, reference lists of retrieved articles will be screened and relevant experts in the field contacted to identify further studies which may not have been identified through the searches or which are in press. Further, forward citation searches will be used of manuscripts that cite studies that have been included in the review. These will be found by searching for each eligible study in Google Scholar.

Types of study to be included

Studies will be considered for inclusion in the review if they meet the following criteria:

- 1) they report on internal consistency, factor structure, reliability, concurrent or predictive validity, or sensitivity
- 2) the measure they report on was designed to assess child abuse through self-report,
- 3) the study is accessible in the English language

Condition or domain being studied

Violence against children is a major public health problem affecting an estimated one billion children annually (Hillis, Mercy, Amobi, & Kress, 2016). In particular, the experience of physical, emotional and sexual abuse and neglect in childhood is associated with long-term poor physical, mental and reproductive outcomes (Kessler et al., 2010; Maniglio, 2009; Norman et al., 2012; Paolucci, Genuis, & Violato, 2001), reduced academic performance, social and cognitive functioning and changes in brain development (Kim & Cicchetti, 2009; Teicher, Samson, Anderson, & Ohashi, 2016). Childhood violence exposure also increases the risk for re-victimisation and violence perpetration throughout the life span and across future generations (Capaldi, Knoble, Shortt, & Kim, 2012; Widom, 2014).

In order to estimate the number of children exposed to violence and neglect in a society and to establish whether child abuse prevention/reduction interventions are effective, valid and reliable child abuse measures are needed. Unfortunately, progress in this field has been hampered by the use of unstandardized measurement (Finkelhor, Ji, Mikton, & Dunne, 2013; Moore et al., 2015) that contributes to implausibly wide variation in estimates within and between groups (Fang et al., 2015). Further, there has been a lack of critical analysis of the sensitivity of various tools to measure change in child abuse in response to interventions. This systematic review has the potential to offer evidence-based guidelines to improve the quality of child abuse measurement.

Child abuse is measured in a number of ways: self-report using standardised measures, agency records, sentinel surveillance studies and observations of interactions between parents and children (Meinck et al., 2016). All of these methods have advantages and disadvantages.

This review will focus on self-report measures as these are least likely to suffer from under-reporting and are the most standardised form of measurement (Meinck et al., 2016). Self-report measures can be employed in four ways:

- 1) With parents, measuring abusive behaviours they have exhibited towards their child
- 2) With parents, measuring any victimisation experience of their child
- 3) With adults, measuring abuse victimisation during their childhood
- 4) With children/adolescents, measuring current or past abuse victimisation

Participants/ population

Parents of children aged 0-17 reporting on their disciplining/parenting practice with their children or on the abuse exposure of their children, children aged 5-17 reporting on their child abuse exposure or adults 18-years and older reporting retrospectively on childhood abuse exposure.

Intervention(s), exposure(s)

Only self-report measures (filled in by children, parents or adults reporting retrospectively) of child abuse victimisation.

Comparator(s)/ control

Not applicable

Context

Studies from across the world will be included if they present any information on psychometric properties of child abuse measures. Studies do not need to be peer-reviewed or published.

Outcome(s)

Primary outcomes

- 1) Internal validity: Item-total correlations, factor structure
- 2) Internal Consistency: Cronbach's Alpha, Guttman's Lambda, Pearson correlation, Intraclass Correlation Coefficient (ICC), Kappa Coefficient
- 3) Concurrent and Predictive validity of the measure: standardised regression coefficients, Odds Ratios, correlations, predictive values in %, likelihood ratio, area under the curve, sensitivity and specificity in % or positive and negative predictive values in PPV or NPVs. These will focus on health and behaviour outcomes which have been found to be repeatedly and strongly (i.e Odds Ratio >3.0) associated with child abuse and adversity: Depression, anxiety, suicidal ideation, self-harm, problem and drug use (Maniglio, 2009; Norman et al., 2012) or where data is available on violence re-victimisation, concurrent violence types which were not part of the child abuse measure being validated (i.e. bullying) or associations between two different child abuse measures.

Secondary outcomes

- 1) Suitability of the measure for use in surveys and for use in intervention studies. This refers i.e. to whether the

response temporal window is appropriate in terms of re-administration or whether the response-scale is sensitive to change over time.

2) Functionality across context: Data on multi-group invariance testing across multiple contexts (i.e. language groups, ethnicities, nations) where this is available. Where information is available functionality across different settings (i.e. schools vs households vs institutions) will be assessed.

3) Acceptability across contexts. This will be assessed based on the description of translation, back-translation, piloting and adaptations for the cultural context in which it was used or other qualitative methods i.e. in-depth interviews with respondents re cultural sensitivity and suitability.

4) Feasibility of use with focus on participant burden. This will be assessed based on the number of items used and the description of the population (age range, literacy competency etc.)

Data extraction, (selection and coding)

Studies will be identified through the above search strategy and loaded into RAYYAN. Two investigators (FM and JJ) will independently review the results of the literature search by screening article titles and abstracts for possible inclusion. Articles which clearly do not meet the inclusion criteria based on title and abstract will be excluded. Where a title or an abstract does not provide enough information, the full text of the article will be reviewed to determine whether the study meets the inclusion criteria. Articles which are assessed ineligible based on the full text will be excluded. Conference abstracts and theses will be assessed using the same criteria and authors will be e-mailed to provide more detailed information where this is necessary. Discrepancies amongst the screeners will be discussed until consensus is reached or in consultation with a third reviewer. Reference lists of included articles will also be screened to identify additional eligible articles. The full text of all eligible articles will be downloaded into the reference management system Mendeley and duplicates deleted. Duplicate studies are those which have authors, setting, location, outcome measures, date and duration of the study in common.

Two reviewers will record all relevant data from included studies into a standardised data extraction form. This form will record information related to study design, participants, outcome measures, psychometric properties (including validity, reliability, sensitivity, specificity). Where papers report on multiple validation studies, a single record will be created for each. Extracted data will then be compared between reviewers. All discrepancies will be discussed until consensus is reached or in consultation with a third reviewer.

Risk of bias (quality) assessment

Studies that evaluate the psychometric properties of child abuses measures should be of high methodological quality and have low risk of bias to assure that conclusions drawn about the results are accurate and appropriate (Terwee, Jansma, Riphagen, & de Vet, 2009). The quality of the individual studies will be assessed using the Consensus-Based Standards for the Selection of Health Status Measurement Instruments (COSMIN) checklist (Mokkink et al., 2010) with the 4 point scale that allows calculation of overall methodological quality scores ranging from poor to excellent. The quality score per measurement property is obtained by taking the lowest rating of any item in a box (Terwee et al., 2012). Measurement properties included in the COSMIN checklist assess the design and the statistical methods in relation to internal consistency, reliability, measurement error, content validity, structural validity, hypothesis testing, cross-cultural validity, criterion validity, responsiveness, interpretability and generalisability.

Strategy for data synthesis

All included studies will be presented in a table providing information on authors, country, sample and respondent type (parent, child, adult retrospective). A second table will show a summary of the identified number of studies per instrument that contain validation information. A third table will present information on the psychometric properties of the instruments and the study quality. This table will rank identified instruments based on the quality of the validation studies supporting its use and its psychometric properties. A fourth table will present data on the suitability of the measure for intervention or survey research, the functionality and acceptability across contexts and participant burden.

A narrative synthesis of the findings from the included studies will also be presented which will be structured by the type of instrument, the setting in which the study was carried out and the population reporting (child self-report, adult retrospective self-report and parental self-report of use of violence or parental report about child exposure to

violence). Summaries of psychometric properties and the quality of the included studies will also be provided in text.

Once all data are coded, decisions will be made as to whether sufficient data is available to carry out meta-analyses. Where sufficient data is provided, sensitivity and specificity will be calculated for each instrument using a cut-off score recommended by empirical studies. These will be presented as forest plots showing sensitivities and specificities and the associated 95% Confidence Interval.

The same approach will be taken if sufficient studies are available to aggregate the available reliability estimates.

Analysis of subgroups or subsets

None planned

Dissemination plans

Findings will be disseminated through a peer-reviewed publication, presentations at child abuse conferences, a research brief uploaded on the website, through social media and newsletters of organisations involved in child abuse research (i.e. ISPCAN, Sexual Violence Research Initiative, OVC Net, KnowViolence Initiative, WHO Violence Prevention Alliance).

Contact details for further information

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Conflicts of interest

None known

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Subject indexing assigned by CRD

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Child; Child Abuse; Humans; Psychometrics; Surveys and Questionnaires

Stage of review

Ongoing

Date of registration in PROSPERO

07 April 2017

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07 April 2017

Stage of review at time of this submission

	Started	Completed
Preliminary searches	No	No
Piloting of the study selection process	No	No
Formal screening of search results against eligibility criteria	No	No
Data extraction	No	No
Risk of bias (quality) assessment	No	No
Data analysis	No	No

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