# INPLASY

## Child Sexual Abuse: A Meta-analysis of Protective Factors

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## INTRODUCTION

Review question / Objective Guided by the PRISMA guidelines, this systematic review and meta-analysis aims to identify the protective factors that produce the largest effect sizes in resilience outcomes of victims (including children, adolescents and adults) of child sexual abuse.

**Rationale** Research consistently shows the negative impact of child sexual abuse (CSA) on child and adolescents' development, both in the short and long term. However, evidence also suggest that, despite CSA, some victims exhibit adaptive functioning. As such, further research efforts focused on resilience outcomes are needed with CSA victims. Risk factors have been widely explored in this context, overlooking protective factors and adaptive functioning. Few studies have identified protective factors linked to positive/adaptive functioning in these victims, including individual factors (e.g., emotional self-regulation), family factors (e.g., parental support) and contextual/community factors (e.g., social support). Nevertheless, there is no systematization of this evidence and we do not know what kind of protective factors produce the largest effect on CSA victims' resilient outcomes. Also, we need to know more about the conditions in which the association between protective factors and outcomes can be enhanced.

**Condition being studied** This study aims to analyze protective factors of psychological health (i.e., competence, well-being and psychopathology) of CSA victims.

## METHODS

**Search strategy** A systematic search will be conducted in electronic databases restricting to articles published in academic journals in English, Portuguese, and Spanish. The studies will be identified using all possible combinations of the following groups of search terms: "Child* sexual abuse" OR "Child* sexual victimization" OR "Child* sexual assault"; AND "psychological health" OR

resilien\* OR competenc\* OR "positive functioning" OR well-being OR "psychological difficult\*" OR symptom\* OR psychopathol\*; AND "cognitive abilit\*" OR "positive self-perception\*" OR self-regulation OR "attribution\*" OR "interpersonal strengths" OR gratitude OR compassion OR generosity OR forgiveness OR meaning-making OR religi\* OR spiritual\* OR support OR coping OR "community cohesion" OR "extra-curricular activit\*" OR "protect\* factor\*".

**Participant or population** Participants will include children, adolescents, and adults (both male and female) who have experienced sexual abuse during childhood (intrafamilial/extrafamilial/both; with physical contact/without physical contact/both). The samples considered will be drawn from clinical, community, or forensic settings.

**Intervention** Not applicable.

**Comparator** Not applicable.

**Study designs to be included** Quantitative empirical studies will be included, using correlational and longitudinal designs.

**Eligibility criteria** This meta-analysis will include: 1) Studies focused on child, adolescents or adults' resilience outcomes after exposure to child sexual abuse; 2) Studies published in English, Portuguese, and Spanish; 3) Peer-reviewed articles published in academic journals; 4) Quantitative empirical studies (correlational, longitudinal, and group comparison designs); 5) Studies that define sexual abuse as any unwanted, nonconsensual or exploitative sexual activity involving a child under 18 years of age, including contact and noncontact abuse; 6) Different types of samples (e.g., community, clinical, forensic samples) could be included.

**Information sources** Electronic search will be conducted in eight databases, namely Academic Search Ultimate, APA PsycArticles, APA PsycINFO, Psychological and Behavioral Sciences Collection, ERIC, MEDLINE Ultimate, Web of Science and Scopus. Additionally, a hand search will be performed based using a snowball approach, by screening the reference lists of the included papers.

**Main outcome(s)** A set of meta-analyses will be conducted to measure the associations (measured in r correlations) of protective factors after exposure to child sexual abuse (categorized according to the Resilience Portfolio Model; Grych et al., 2015) and psychological health dimensions

(psychopathology, well-being, competence). Specifically, effect sizes of similar protective factors (e.g., interpersonal strengths, environmental factors) will be aggregated, and psychological outcomes will be categorized into psychopathology, well-being or competence. Subsequently, a meta-analysis will be conducted for each association of a type of protective factor with a category of psychological outcomes.

**Additional outcome(s)** To understand the conditions in which the association between protective factors and psychological outcomes can be enhanced, information will be aggregated regarding specific characteristics of the samples, the context of the abuse and the nature of the experience.

**Data management** The study selection process will be oriented by the guidelines of the Preferred Reporting Items for Systematic Reviews and Meta-analyses (PRISMA; Liberati et al., 2009), comprising four essential steps: identification, screening, eligibility, and inclusion. First, Endnote – web version will be used to find and remove duplicates. Second, the titles and abstracts will be screened in the Rayyan QCRI app, and inter-judges' agreement of 30% of the records will be conducted (discrepancies will be resolved through consensus during research team discussions). Third, the eligibility criteria will be applied through full-text reading of the manuscripts, deciding about the inclusion of the studies on the systematic review and meta-analysis. A coding sheet will be created and data will be extracted into an excel form. The meta-analyses will be conducted in R software.

**Quality assessment / Risk of bias analysis** The STROBE criteria (Vandenbroucke et al., 2007) will be used to assess the methodological quality of the studies. The degree of risk of bias will be used as a moderator to analyze the influence of risk of bias on the effect sizes. Further, trim-and-fill analyses will be conducted to check for publication bias.

**Strategy of data synthesis** A descriptive analysis of the main characteristics of the studies will be conducted, identifying categories of studies regarding the country/region of data collection, sample size, sample type (clinical/community/forensic), gender of the participants (female/male/mixed), the context of the abuse (intrafamilial/extrafamilial/both), and the nature of the experience (with physical contact/without physical contact/both) of sexual abuse. Pearson correlations of each protective factor with each

psychological outcome will be used as effect size to calculate the meta-analyses. The results will be aggregated according to the psychological outcome (psychopathology, well-being, competence), combined with each dimension of protective factors identified by the Resilience Portfolio Model (Grych et al., 2015): assets (interpersonal strengths, meaning-making, self-regulation), resources (supportive relationships, environmental factors), and coping responses.

**Subgroup analysis** For subgroup analyses, we will take into account various factors, such as the type of sample (clinical/community/forensic), the gender of the participants (female/male/mixed), the context of the abuse (intrafamilial/extrafamilial/both), and the nature of the experience (with physical contact/without physical contact/both) of sexual abuse. Additionally, we will consider the outcomes of resilience assessment, considering data collected during childhood, adulthood, or a combination of both.

**Sensitivity analysis** Not applicable.

**Language restriction** Only English, Portuguese and Spanish languages will be included.

**Country(ies) involved** Portugal.

**Keywords** Child sexual abuse, Resilience, Protective factors.

**Dissemination plans** The study will be published in an international journal of Psychology with peer review, and the results will be disseminated through active participation in international scientific meetings.

**Contributions of each author**
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