## Section S1

## Search Strategies for Databases ERIC, PsycINFO, Web of Science, and Google Scholar

**Search ERIC (05-03-2021)**

**#1 School setting**

(School* or teacher* or ((staff or personnel) and (school or educat*)) or educator*).ti,ab,id. or teacher*.sh.

**#2 Age group research population**

children/ or preadolescents/ or youth/ or adolescents/ or early adolescents/ or late adolescents/ or elementary school students/ or middle school students/ or junior high school students/ or secondary school students/ or high school students/ or students/ or (Student* or pupil* or Child* or adolescent* or teen* or youth* or youngster*).ti,ab,id.

**#3 Physical Punishment**

(student victim* or corporal* punish* or physical* punish* or physical maltreat* or ((teacher* or staff or educator*) adj3 (violen* or maltreat* or punish*))).ti,ab,id. or punishment/

**#4 Study type**

Longitudinal studies/ or followup studies/ or (survey* or cross-sectional or longitud* or followup or follow-up or cohort* or questionnair* or task* or rating* or scale* or covariat* or correlat* or mediat* or moderat* or effect size or outcomes or odds).ti,ab,id.

**1 AND 2 AND 3 AND 4 494 results**

**Search PsycINFO (05-03-2021)**

**#1 School setting**

(School* or teacher* or ((staff or personnel) and (school or educat*)) or educator*).ti,ab,id. or educational personnel/

**#2 Age group research population**

school age 6 12 yrs or adolescence 13 17 yrs).ag. or (Student* or pupil* or Child* or adolescent* or teen* or youth* or youngster*).ti,ab,id.

**#3 Physical Punishment**

(student victim* or corporal* punish* or physical* punish* or physical maltreat* or ((teacher* or staff or educator*) adj3 (violen* or maltreat* or punish*))).ti,ab,id. or punishment/ or physical discipline/

**#4 Study type**

Longitudinal studies/ or Followup studies/ or prospective studies/ or retrospective studies/ or (followup study or longitudinal study or prospective study or retrospective study).md. or (survey* or cross-sectional or longitud* or followup or follow-up or cohort* or questionnair* or task* or rating* or scale* or covariat* or correlat* or mediat* or moderat* or effect size or outcomes or odds).ti,ab,id.

**1 AND 2 AND 3 AND 4 745 results**

**Search Web of Science (05-03-2021)**

**#1 School setting**

TS=("School*" OR "teacher*" OR (("staff" OR "personnel") AND ("school" OR "educat*") ) OR "educator*")

**#2 Age group research population**

TS=(“Student*” OR “pupil*” OR “Child*” OR “adolescent*” OR “teen*” OR “youth*” OR “youngster*”)

**#3 Physical Punishment**

TS=(“student victim*” OR “corporal* punish*” OR “physical* punish*” OR “physical maltreat*” OR ((“teacher*” OR “staff” OR “educator*”) NEAR/2 (“violen*” OR “maltreat*” OR “punish*”)))

**#4 Study type**

TS=(“survey*” OR “cross-sectional” OR “longitud*” OR “followup” OR “follow-up” OR “cohort*” OR “questionnair*” OR “task*” OR “rating*” OR “scale*” OR “covariat*” OR “correlat*” OR “mediat*” OR “moderat*” OR “effect size” OR “outcomes” OR “odds”)

**1 AND 2 AND 3 AND 4 595 results**

**Search Google Scholar (05-03-2021)**

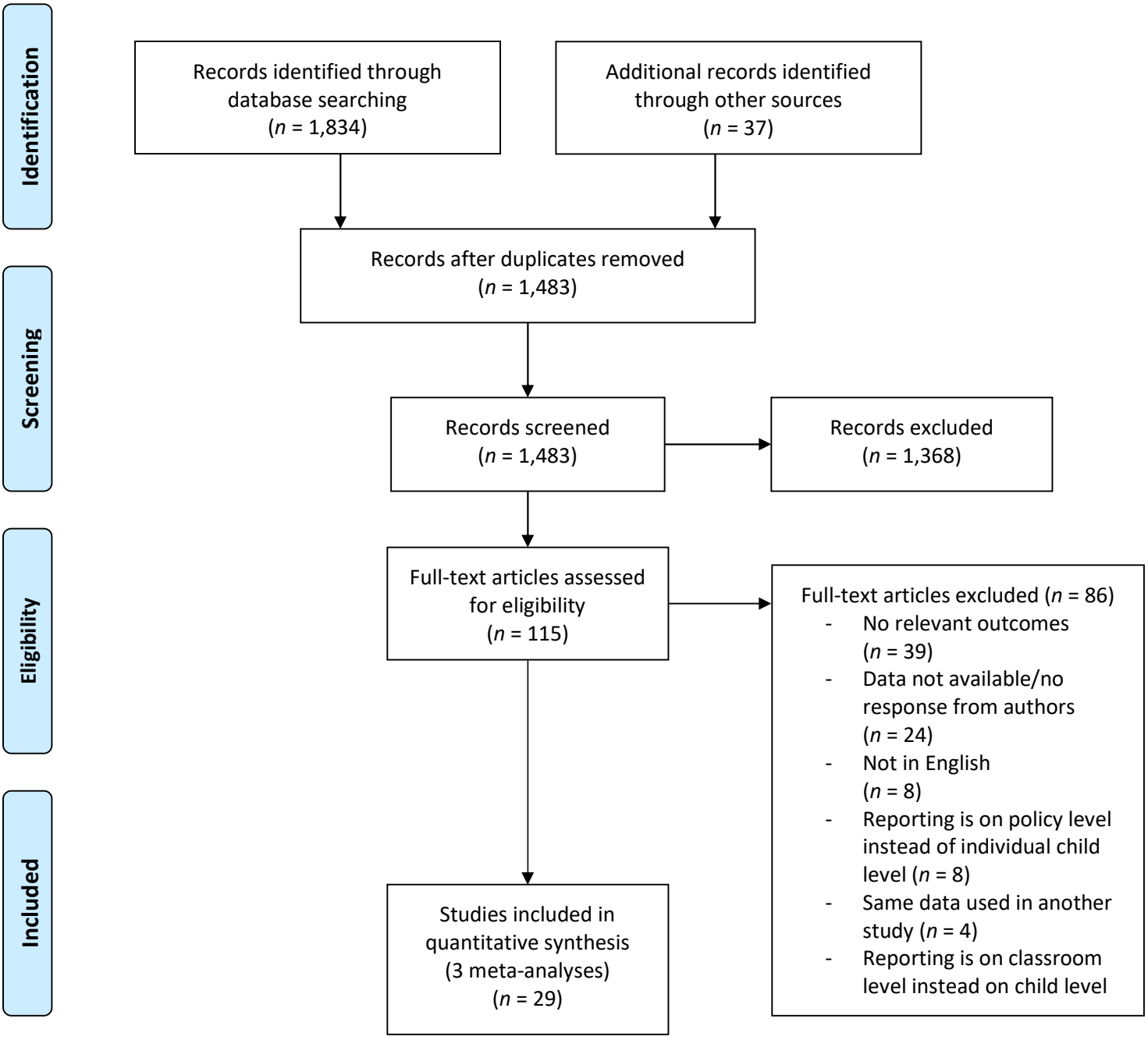
school|teacher "corporal punishment"|"physical punishment"|"physical discipline"|"physical maltreatment"|child|pupil|student|adolescent

**36 selected**

## Section S2

**Figure S1**

*PRISMA Flow Diagram of the Search Strategy*




*Note.* The electronic databases ERIC, PsycINFO, Web of Science, and Google Scholar were searched.

## Section S3

## Characteristics of the Included Studies

**Table S1**

*Characteristics of the 29 Included Studies on SCP and Externalizing Behavior Problems, Internalizing Behavior Problems, and School Performance*

| Author | Year | *N* | Country | Outcome(s) | Status | Study design | % Male | Age range of the children (min-max) | Mean age | # Effect sizes extracted |
|---|---|---|---|---|---|---|---|---|---|---|
| Ahmed et al. | 2015 | 3,509 | Malaysia | Internalizing behavior problems | P | C | 51.8 | 10-12 | NA | 1 |
| Anderson et al. | 2019 | | United States of America | School performance | P | C | | | | |
| Younger sample | | 564,990 | | | | | 51.2 | NA | NA | 4 |
| Older sample | | 387,062 | | | | | 50.8 | NA | NA | 2 |
| Ani & Grantham-McGregor | 1998 | 94 | Nigeria | Externalizing behavior problems | P | C | 100 | 10-13 | 11.70 | 1 |
| Baker-Henningham et al. | 2009 | 1,300 | Jamaica | School performance | P | C | 49.0 | NA | 11.00 | 6 |
| Benbenisthy et al. | 2019 | | | Externalizing behavior problems | P | C | | | | |
| Chile | | 24,243 | Chile | | | | 44.2 | NA | NA | 12 |
| Israel | | 4,557 | Israel | | | | Jewish: 51.2<br>Arab: 46.8 | NA | NA | 48 |
| Benbenisthy et al. | 2021 | 601 | Cameroon | Externalizing behavior problems | P | C | 38.0 | 9-20 | NA | 18 |
| Boyden | 2018 | | | School performance | U | C | | | | |
| Young cohort | | 1,885 | Ethiopia | | | | 52.8 | 7-11 | 8.12 | 3 |

| Author | Year | *N* | Country | Outcome(s) | Status | Study design | % Male | Age range of the children (min-max) | Mean age | # Effect sizes extracted |
|---|---|---|---|---|---|---|---|---|---|---|
| Old cohort | | 974 | Ethiopia | | | | 51.2 | 14-16 | 15.03 | 3 |
| Young cohort | | 1,931 | India | | | | 53.5 | 7-9 | 7.95 | 3 |
| Old cohort | | 977 | India | | | | 49.4 | 14-16 | 14.94 | 3 |
| Young cohort | | 2,051 | Peru | | | | 50.4 | 7-9 | 7.91 | 3 |
| Old cohort | | 714 | Peru | | | | 53.4 | 14-17 | 14.89 | 3 |
| Young cohort | | 1,964 | Vietnam | | | | 51.2 | 7-9 | 8.05 | 3 |
| Old cohort | | 976 | Vietnam | | | | 49.6 | 14-16 | 15.05 | 3 |
| Bravo-Sanzana et al. | 2020 | 2,140 | Chile | School performance | P | C | 41.0 | 14-19 | 15.85 | 1 |
| [a]Chen & Wei | 2011 | 1,376 | Taiwan | Externalizing and internalizing behavior problems | P | C | 48.2 | NA | 12-15 | 3 |
| Chen & Wei | 2013 | 1,650 | Taiwan | Internalizing behavior problems | P | C | 51.0 | NA | 12-15 | 1 |
| Chen et al. | 2020 | 1,262 | Taiwan | Externalizing behavior problems | P | C | 38.3 | NA | 12-15 | 2 |
| Choi | 2021 | 4,051 | South Korea | Externalizing behavior problems | P | L | 51.0 | NA | 12-15 | 6 |
| Corboz et al. | 2019 | | Afghanistan | Externalizing and internalizing behavior problems | P | C | | | | |
| Girls | | 420 | | | | | 0 | 14.24 | 10-18 | 2 |
| Boys | | 350 | | | | | 100 | 14.48 | 12-19 | 2 |
| Csorba et al. | 2001 | 526 | Hungary | Internalizing behavior problems | P | C | 67.0 | 11.60 | NA | 1 |
| Deb et al. | 2017 | 519 | India | Internalizing behavior problems | P | C | 62.6 | NA | 11-16 | 1 |
| Devries et al. | 2014 | | Uganda | Externalizing behavior problems | P | C | | | | |

| Author | Year | *N* | Country | Outcome(s) | Status | Study design | % Male | Age range of the children (min-max) | Mean age | # Effect sizes extracted |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | and school performance | | | | | | |
| Girls | | 1,937 | | | | | 0 | NA | NA | 3 |
| Boys | | 1,769 | | | | | 100 | NA | NA | 3 |
| Gershoff et al.* | 2019 | 830 | United States of America | Internalizing behavior problems and school performance | P | C | 45.0 | 21.00 | 18-23 | 2 |
| Gundersen & McKay | 2019 | 1,652 | The Gambia | School performance | P | C | 51.0 | 12.38 | 7.22 | 3 |
| [b]He et al. | 2019 | 6,576 | China | Internalizing behavior problems | P | C | 56.3 | 13.37 | 10-19 | 1 |
| [b]He et al. | 2021 | 6,576 | China | Internalizing behavior problems | U | C | 56.3 | 13.37 | 10-19 | 1 |
| Hecker et al. | 2014 | 409 | Tanzania | Externalizing behavior problems | P | C | 52.0 | 10.49 | 6-15 | 4 |
| Khuwaja et al. | 2018 | | Pakistan | Externalizing behavior problems, internalizing behavior problems, and school performance | P | C | | | | |
| Girls | | 930 | | | | | 0 | 12.27 | 9-18 | 3 |
| Boys | | 822 | | | | | 100 | 12.51 | 8-19 | 3 |
| Kızıltepe et al. | 2020 | 293 | Turkey | Externalizing behavior problems, internalizing behavior problems, and school performance | P | C | 50.5 | 12.59 | 10-15 | 4 |
| [c]Nkuba et al. | 2018 | 700 | Tanzania | Externalizing behavior problems and internalizing behavior problems | P | C | 48.0 | 14.92 | 12-17 | 3 |
| [c]Nkuba et al. | 2019 | 700 | Tanzania | Externalizing behavior problems | P | C | 48.0 | 14.92 | 12-17 | 2 |

| Author | Year | *N* | Country | Outcome(s) | Status | Study design | % Male | Age range of the children (min-max) | Mean age | # Effect sizes extracted |
|---|---|---|---|---|---|---|---|---|---|---|
| Oriol et al. | 2017 | 21,416 | Peru | Externalizing behavior problems and internalizing behavior problems | P | C | 53.83 | 13.69 | 13-17 | 3 |
| [a]Wei et al. | 2010 | 1,376 | Taiwan | Externalizing behavior problems and internalizing behavior problems | P | C | 48.2 | NA | 12-15 | 4 |
| [d]Youssef et al. | 1998 | 2,170 | Egypt | Externalizing behavior problems and school performance | P | C | 61.0 | 14.58 | 10.5-20 | 10 |
| [d]Youssef et al. | 1999 | 2,170 | Egypt | Externalizing behavior problems | P | C | 61.0 | 14.48 | 10.5-20 | 1 |

*Note.* Year = publication year; *N* = sample size; Country = country in which a study was performed; Outcome(s) = outcomes reported in a primary study; Status = published (P) or unpublished (U); Study design = cross-sectional (C) or longitudinal (L); % Male = percentage of males in a sample; Minimum and maximum age = the minimum and maximum age of a sample; Mean age = the mean age of a sample in years; Effect sizes extracted = number of effect sizes extracted from a study.
Studies sharing the same subscript ([a], [b], [c], [d]) were assigned the same study ID in the dataset as the authors of these primary studies reported on the same (sub)sample of participants. NA = Not Available, and indicates that the information could not be retrieved from the primary study.
[*] Gershoff et al. (2019) asked emerging adults to retrospectively reflect on their schooling years. Therefore, the mean age of this sample is higher than 18.
From several studies a relatively high number of effect sizes (10 or more) could be extracted as these studies reported on multiple/diverse forms of SCP. All these effect sizes met our inclusion criteria, and were this included in the review.

## Section S4

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## Section S5

## Coding Scheme for the Included Studies

In case of missing or unknown values, leave field blank.

**General Information article**

1. Study ID number (1, 2, 3...): [studyID]

2. Effect size ID (1, 2, 3 …): [effectID]

3. Bibliographic reference: Write a complete citation in APA form [bib]

_____

_____

4. Coder name: [coder]

5. Date of coding: [cdate]

6. Year of publication: [pubyear]

7. Publication status: [pubstatus]
   1. Published (in a peer-reviewed journal)
   2. Unpublished

**Sample Descriptors**

8. Sample size of children on which the effect size is based: [Neff]

9. Sample size of children/adults in a sample (that reported on SCP): [Nchild]

10. Overall mean age of the sampled children in years (at first measurement): [agechild]

11. Age range of the sampled children (oldest – youngest) in years: [agerangechild]

12. Type of school: [typeschool]
    1. Primary
    2. Secondary
    3. Both

13. Percentage of children that is corporally punished at school: [SCPsample]

14. Percentage of boys in the sample: [percboy]

**Research design and quality descriptors**

15. Country in which a study was performed: _____ [country]

16. Continent in which a study was performed: [continent]
    1. Europe
    2. Asia

3. Africa
4. North America
5. South America
6. Other (specify): _____

17. Is the study design cross-sectional or longitudinal? [designlongcros]
    1. Cross-sectional
    2. Longitudinal

18. Instrument that was used to measure SCP: [instrumentSCP]
    1. Questionnaire
    2. Interview
    3. Observation

19. Time period in which SCP frequency and/or occurrence was measured: [durSCP]
    1. Previous day
    2. Previous week
    3. Last month/last two months
    4. Current semester/last semester
    5. Current school year
    6. Current (calendar) year
    7. Previous (calendar) year
    8. Ever
    9. In a 'typical' week

20. Operationalization of SCP/severity of SCP: [operSCP]
    1. Punishment with hand(s) and/or object(s)
    2. Punishment without any object
    3. Punishment only with object(s)
    4. Punishment, not further defined

21. Label for SCP used in a primary study: [labelSCP]
    1. Corporal punishment
    2. Physical violence
    3. Physical maltreatment
    4. Physical punishment
    5. Physical victimization by teacher
    6. Physical discipline
    7. Teacher's aggressive behavior

22. Instrument used for measuring externalizing behavior problems: [instrumentext]
    1. Questionnaire
    2. Interview
    3. Observation

23. Operationalization of externalizing problems: [operext]
    1. Bullying/peer perpetration
    2. Being verbally aggressive
    3. Being physically aggressive
    4. Having conduct disorder / conduct problems

5. Being hyperactive
6. Showing delinquent and/or rule-breaking behavior
7. Total scale score on the Strengths and Difficulties questionnaire
8. Being stubborn
9. Telling lies (often)
10. Being physically and verbally aggressive

24. Instrument used for measuring internalizing behavior problems: [instrumentint]
    4. Questionnaire
    5. Interview
    6. Observation

25. Type of internalizing behavior problems: [operint]
    1. Depression
    2. Anxiety
    3. Emotional problems
    4. Low self-esteem
    5. Depression and anxiety
    6. Loneliness

26. Instrument used for measuring school performance: [instrumentcog]
    1. Questionnaire
    2. Interview
    3. Test/assessment

27. Operationalization of school performance: [opercog]
    1. Spelling skills
    2. Reading skills
    3. Vocabulary score
    4. Mathematics performance
    5. Frequency/Occurrence of repeating a school year or retaking exam(s)
    6. Grade average(s)
    7. (Aggregated) Index of language, reading, and mathematics skills

28. Dimension of SCP that is measured: [SCPindexarticle]
    1. Frequency
    2. Frequency and types
    3. Present versus absent
    4. Present versus absent and types

**Effect Size Level Coding Form**

29. Effect size label (describe effect size in terms of type and outcome) [eslabel]

30. Outcome of interest [outcomeES]
    1. School performance
    2. Internalizing behavior
    3. Externalizing behavior

31. Is the effect size adjusted or unadjusted? [statadj]
    1. Unadjusted
    2. Adjusted

32. Effect size (Pearson's *r*) [escorrvalue]

## Section S6

**Table S1.** *Significant and Non-Significant Results for Categorical and Continuous Variables Tested as Moderators (in Bivariate Models).*

| Variables tested as moderators | # Studies | # ES | Intercept (95% CI) / Mean *Z* (95% CI) | Mean *r* | β (95% CI) | *F*(df1, df2)[a] | *p*[b] |
|---|---|---|---|---|---|---|---|
| **Externalizing behavior problems** | | | | | | | |
| *Study characteristics* | | | | | | | |
| Continent in which a study was performed | | | | | | *F*(2, 117) = 2.661 | .074$^{+}$ |
| Asia (RC) | 11 | 64 | 0.320 (0.260; 0.379)$^{***}$ | .310 | | | |
| Africa | 6 | 31 | 0.202 (0.119; 0.284)$^{***}$ | .199 | -0.118 (-0.220; -0.017)$^{*}$ | | |
| Other | 4 | 25 | 0.277 (0.179; 0.374)$^{***}$ | .270 | 0.043 (-0.157; 0.071) | | |
| Type of school corporal punishment | | | | | | *F*(2, 117) = 3.008 | .053$^{+}$ |
| With hand and/or objects (RC) | 12 | 35 | 0.248 (0.187; 0.308)$^{***}$ | .243 | | | |
| Without objects | 6 | 72 | 0.333 (0.267; 0.399)$^{***}$ | .321 | 0.085 (-0.005; 0.175)$^{+}$ | | |
| Only with objects or not defined | 4 | 13 | 0.267 (0.191; 0.344)$^{***}$ | .261 | 0.020 (-0.078; 0.117) | | |
| Method used for measuring SCP | | | | | | *F*(1, 118) = 0.307 | .581 |
| Questionnaire (RC) | 15 | 109 | 0.286 (0.233; 0.339)$^{***}$ | .278 | | | |
| Interview | 6 | 11 | 0.256 (0.163; 0.349)$^{***}$ | .251 | -0.030 (-0.137; 0.077) | | |
| Time period in which SCP was measured | | | | | | *F*(2, 113) = 2.790 | .066$^{+}$ |
| Last week, month or two months (RC) | 14 | 89 | 0.306 (0.255; 0.357)$^{***}$ | .297 | | | |
| From this semester to last year | 5 | 23 | 0.246 (0.164; 0.328)$^{***}$ | .241 | -0.062 (-0.157; -0.037) | | |
| Ever | 1 | 4 | 0.098 (-0.085; 0.281) | .098 | -0.208 (-0.398; -0.018)$^{*}$ | | |
| Method for measuring externalizing behavior | | | | | | *F*(1, 118) = 0.014 | .906 |
| Questionnaire (RC) | 16 | 110 | 0.280 (0.228; 0.333)$^{***}$ | .273 | | | |
| Interview | 5 | 10 | 0.274 (0.175; 0.372)$^{***}$ | .267 | -0.007 (-0.119; 0.105) | | |
| Dimension of SCP that was measured | | | | | | *F*(2, 117) = 5.058 | .008$^{**}$ |
| Frequency (RC) | 8 | 80 | 0.314 (0.258; 0.369)$^{***}$ | .304 | | | |
| Present versus absent | 7 | 22 | 0.191 (0.126; 0.256)$^{***}$ | .189 | -0.123 (-0.208; -0.037)$^{**}$ | | |
| Frequency and types | 6 | 18 | 0.321 (0.251; 0.390)$^{***}$ | .310 | 0.007 (-0.082; 0.096) | | |
| Operationalization of externalizing behavior | | | | | | *F*(9, 110) = 2.600 | .009$^{**}$ |
| Delinquency/rule-breaking behavior (RC) | 11 | 36 | 0.267 (0.217; 0.318)$^{***}$ | .261 | | | |
| Being physically aggressive | 11 | 31 | 0.293 (0.241; 0.345)$^{***}$ | .285 | 0.026 (-0.006; 0.058) | | |
| Being verbally aggressive | 8 | 28 | 0.261 (0.208; 0.315)$^{***}$ | .256 | -0.006 (-0.039; 0.027) | | |
| Peer perpetration/bullying | 7 | 7 | 0.375 (0.303; 0.447)$^{***}$ | .358 | 0.108 (0.028; 0.187)$^{**}$ | | |
| Being physically and verbally aggressive | 1 | 6 | 0.300 (0.136; 0.465)$^{***}$ | .291 | 0.033 (-0.139; 0.205) | | |

| Variables tested as moderators | # Studies | # ES | Intercept (95% CI) / Mean *Z* (95% CI) | Mean *r* | β (95% CI) | *F*(df1, df2)[a] | *p*[b] |
|---|---|---|---|---|---|---|---|
| Total scale score on SDQ | 2 | 4 | 0.178 (0.050; 0.305)** | .176 | -0.089 (-0.226; 0.048) | | |
| Having conduct disorder/conduct problems | 3 | 3 | 0.192 (0.083; 0.300)*** | .189 | -0.075 (-0.184; 0.033) | | |
| Being hyperactive | 3 | 3 | 0.167 (0.058; 0.275)** | .165 | -0.101 (-0.209; 0.007) | | |
| (Often) Telling lies | 1 | 1 | 0.236 (0.098; 0.374)** | .232 | -0.031 (-0.161; 0.100) | | |
| Being stubborn | 1 | 1 | 0.149 (0.011; 0.287)* | .148 | -0.118 (-0.248; 0.013) | | |
| *Sample characteristics* | | | | | | | |
| Mean age of the sample in years | 10 | 26 | 0.275 (0.163; 0.387)*** | - | 0.007 (-0.071; 0.085) | *F*(1, 24) = 0.034 | .855 |
| Percentage of boys in the sample | 21 | 120 | 0.279 (0.233; 0.326)*** | - | -0.000 (-0.002; 0.002) | *F*(1, 118) = 0.072 | .790 |
| Type of school | | | | | | *F*(2, 117) = 0.151 | .860 |
| Both (RC) | 7 | 88 | 0.290 (0.214; 0.366)*** | .282 | | | |
| Secondary school | 8 | 21 | 0.282 (0.203; 0.361)*** | .274 | -0.009 (-0.118; 0.101) | | |
| Primary school | 6 | 11 | 0.257 (0.161; 0.352)*** | .251 | -0.033 (-0.156; 0.089) | | |
| **Internalizing behavior problems** | | | | | | | |
| *Study characteristics* | | | | | | | |
| Continent in which a study was performed | | | | | | *F*(1, 16) = 0.182 | .676 |
| Asia (RC) | 9 | 12 | 0.163 (0.115; 0.212)*** | .162 | | | |
| Other | 5 | 6 | 0.146 (0.077; 0.216)*** | .145 | -0.017 (-0.102; 0.068) | | |
| Type of school corporal punishment | | | | | | *F*(1, 13) = 0.001 | .983 |
| With hand and/or objects (RC) | 9 | 10 | 0.154 (0.101; 0.208)*** | .153 | | | |
| Not defined | 3 | 5 | 0.155 (0.081; 0.229)*** | .154 | 0.001 (-0.090; 0.092) | | |
| Time period in which SCP was measured | | | | | | *F*(2, 12) = 3.484 | .064+ |
| Last month (RC) | 5 | 5 | 0.218 (0.147; 0.289)*** | .215 | | | |
| From last semester to previous year | 6 | 8 | 0.147 (0.097; 0.197)*** | .146 | -0.071 (-0.158; 0.016) | | |
| Ever | 2 | 2 | 0.076 (-0.022; 0.173) | .076 | -0.142 (-0.263; -0.022)* | | |
| Dimension of SCP that was measured | | | | | | *F*(2, 15) = 1.208 | .326 |
| Present versus absent (RC) | 6 | 7 | 0.146 (0.084; 0.207)*** | .145 | | | |
| Frequency and types | 5 | 7 | 0.191 (0.129; 0.253)*** | .189 | 0.046 (-0.042; 0.133) | | |
| Frequency | 3 | 4 | 0.123 (0.046; 0.200)** | .122 | -0.023 (-0.121; 0.076) | | |
| Operationalization of internalizing behavior | | | | | | *F*(5, 12) = 0.885 | .521 |
| Being depressed (RC) | 11 | 12 | 0.173 (0.120; 0.226)*** | .171 | | | |
| Having emotional problems | 2 | 2 | 0.159 (0.020; 0.298)* | .158 | -0.014 (-0.162; 0.135) | | |
| Being anxious | 1 | 1 | 0.109 (-0.049; 0.266) | .108 | -0.065 (-0.225; 0.096) | | |
| Being lonely | 1 | 1 | 0.139 (-0.016; 0.294) | .138 | -0.034 (-0.192; 0.123) | | |
| Having low(er) self-esteem | 1 | 1 | 0.032 (-0.130; 0.195) | .032 | -0.141 (-0.303; 0.022) | | |
| Being both depressed and anxious | 1 | 1 | 0.182 (-0.009; 0.373) | .180 | 0.009 (-0.190; 0.208) | | |
| Statistical adjustment of effect sizes | | | | | | *F*(1, 16) = 0.398 | .537 |

| Variables tested as moderators | # Studies | # ES | Intercept (95% CI) / Mean *Z* (95% CI) | Mean *r* | β (95% CI) | *F*(df1, df2)[a] | *p*[b] |
|---|---|---|---|---|---|---|---|
| Unadjusted (RC) | 12 | 16 | 0.153 (0.111 0.196)$^{***}$ | .152 | | | |
| Adjusted | 2 | 2 | 0.191 (0.072; 0.310)$^{**}$ | .189 | 0.038 (-0.089; 0.164) | | |
| *Sample characteristics* | | | | | | | |
| Mean age of the sample in years | 10 | 12 | 0.179 (0.129; 0.229)$^{***}$ | - | -0.021 (-0.041; -0.002)$^{*}$ | *F*(1, 10) = 5.773 | .037$^{*}$ |
| Percentage of boys in the sample | 14 | 18 | 0.157 (0.118; 0.197)$^{***}$ | - | -0.001 (-0.002; 0.001) | *F*(1, 16) = 0.385 | .544 |
| Type of school | | | | | | *F*(2, 15) = 2.889 | .087$^{+}$ |
| Secondary school (RC) | 8 | 11 | 0.150 (0.104; 0.197)$^{***}$ | .149 | | | |
| Primary school | 4 | 4 | 0.223 (0.146; 0.299)$^{***}$ | .219 | 0.073 (-0.017; 0.162) | | |
| Both | 2 | 3 | 0.098 (0.014; 0.181)$^{*}$ | .097 | -0.053 (-0.148; 0.043) | | |
| **School performance** | | | | | | | |
| *Study characteristics* | | | | | | | |
| Continent in which a study was performed | | | | | | *F*(3, 43) = 1.326 | .278 |
| Asia (RC) | 6 | 14 | -0.103 (-0.178; -0.028)$^{**}$ | -.103 | | | |
| North America | 4 | 13 | -0.106 (-0.196; -0.015)$^{*}$ | -.106 | -0.003 (-0.120; 0.115) | | |
| Africa | 5 | 11 | -0.060 (-0.141; 0.021) | -.060 | 0.043 (-0.068; 0.153) | | |
| Other | 5 | 9 | -0.174 (-0.258; -0.091)$^{***}$ | .172 | -0.071 (-0.184; 0.041) | | |
| Method used for measuring SCP | | | | | | *F*(1, 39) = 3.505 | .069$^{+}$ |
| Interview (RC) | 14 | 37 | -0.101 (-0.147; -0.054)$^{***}$ | -.100 | | | |
| Questionnaire | 4 | 4 | -0.196 (-0.287; -0.104)$^{***}$ | -.193 | -0.095 (-0.198; 0.008)$^{+}$ | | |
| Time period in which SCP was measured | | | | | | *F*(4, 42) = 1.461 | .231 |
| Previous day or week (RC) | 9 | 23 | -0.066 (-0.126; -0.007)$^{*}$ | -.066 | | | |
| Current school year to previous school year | 5 | 14 | -0.133 (-0.212; -0.054)$^{**}$ | -.132 | -0.067 (-0.166; 0.032) | | |
| Last month | 3 | 3 | -0.208 (-0.320; 0.096)$^{***}$ | -.205 | -0.142 (-0.269; -0.015)$^{*}$ | | |
| In a 'typical' school week | 2 | 6 | -0.104 (-0.230; 0.022) | -.104 | -0.038 (-0.178; 0.101) | | |
| Ever | 1 | 1 | -0.148 (-0.336; 0.040) | -.147 | -0.082 (-0.279; 0.115) | | |
| Dimension of SCP that was measured | | | | | | *F*(1, 45) = 0.298 | .588 |
| Present versus absent and types (RC) | 5 | 12 | -0.130 (-0.214; -0.046)$^{**}$ | -.129 | | | |
| Frequency and types | 15 | 35 | -0.103 (-0.152; -0.054)$^{***}$ | -.103 | -0.026 (-0.071; 0.124) | | |
| Operationalization of school performance | | | | | | *F*(6, 40) = 1.823 | .119 |
| Mathematics performance (RC) | 11 | 13 | -0.089 (-0.139; -0.039)$^{***}$ | -.089 | | | |
| Reading skills | 10 | 13 | -0.103 (-0.154; -0.052)$^{***}$ | -.103 | -0.014 (-0.040; 0.012) | | |
| Vocabulary score | 8 | 8 | -0.072 (-0.124; -0.019)$^{**}$ | -.071 | 0.017 (-0.012; 0.047) | | |
| Grade average(s) | 4 | 4 | -0.192 (-0.290; -0.095)$^{***}$ | -.190 | -0.103 (-0.213; 0.006) | | |
| (Aggregated) Index of language, reading, and mathematics skills | 3 | 4 | -0.094 (-0.144; -0.044)$^{***}$ | -.093 | -0.005 (-0.013; 0.004) | | |
| Frequency/Occurrence of repeating a school year or retaking exam(s) | 2 | 3 | -0.106 (-0.233; 0.021) | -.106 | -0.017 (-0.153; 0.119) | | |

| Variables tested as moderators | # Studies | # ES | Intercept (95% CI) / Mean *Z* (95% CI) | Mean *r* | β (95% CI) | *F*(df1, df2)[a] | *p*[b] |
|---|---|---|---|---|---|---|---|
| Spelling skills | 1 | 2 | -0.066 (-0.147; 0.015) | -.066 | 0.023 (-0.045; 0.090) | | |
| Publication status of primary study | | | | | | *F*(1, 45) = 2.083 | .156 |
| Unpublished (RC) | 8 | 24 | -0.075 (-0.138; -0.011)$^{*}$ | -.075 | | | |
| Published | 12 | 23 | -0.134 (-0.187; -0.081)$^{***}$ | -.133 | -0.059 (-0.142; 0.024) | | |
| *Sample characteristics* | | | | | | | |
| Mean age of the sample in years | 16 | 39 | -0.124 (-0.163; -0.089)$^{***}$ | - | -0.009 (-0.020; 0.002) | *F*(1, 37) = 2.701 | .109 |
| Percentage of boys in the sample | 20 | 47 | -0.110 (-0.151; -0.069)$^{***}$ | - | -0.001 (-0.001; 0.003) | *F*(1, 45) = 1.423 | .239 |
| Type of school | | | | | | *F*(2, 44) = 0.262 | .771 |
| Primary school (RC) | 10 | 25 | -0.099 (-0.160; -0.037)$^{**}$ | -.098 | | | |
| Both | 7 | 18 | -0.113 (-0.186; -0.039)$^{**}$ | -.112 | 0.014 (-0.110; 0.082) | | |
| Secondary school | 3 | 4 | -0.145 (-0.261; -0.029)$^{*}$ | -.144 | -0.047 (-0.178; 0.084) | | |

*Note*. # Studies = number of independent study samples; # ES = number of effect sizes; Mean *Z* = Mean effect size (Fisher's *Z*); CI = confidence interval; Mean *r* = Mean effect size (Pearson's correlation); β = estimated regression coefficient; RC = Reference category; SDQ = Strengths and Difficulties Questionnaire.

[a] Omnibus test of all regression coefficients in the model.

[b] *p*-value of the omnibus test.

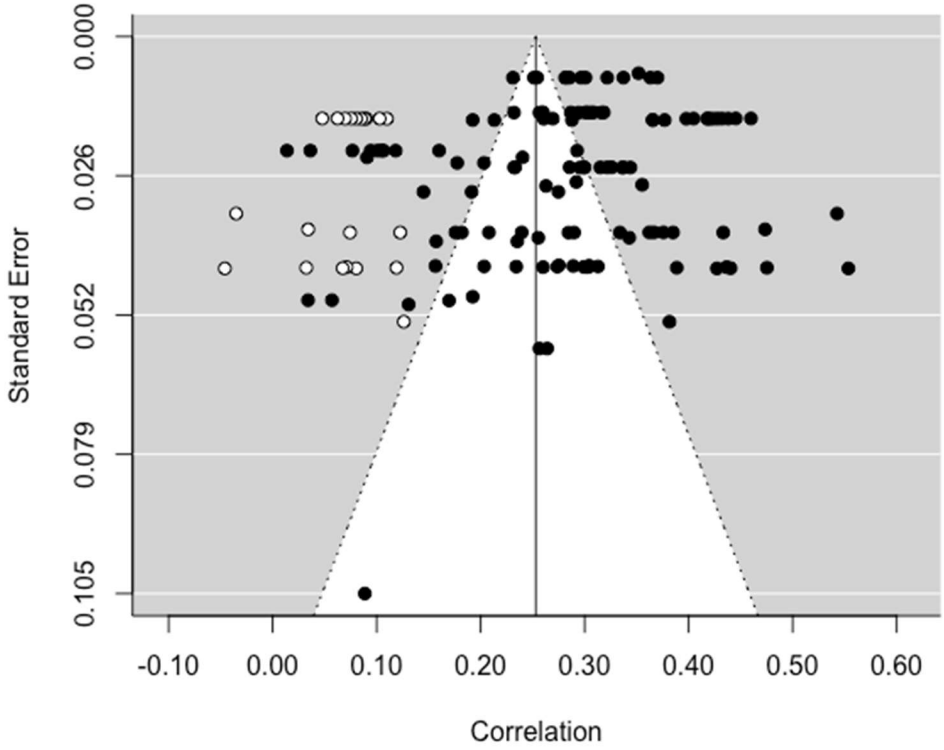
$^{+}p < .10$; $^{*}p < .05$; $^{**}p < .01$; $^{***}p < .001$.

## Section S7

## Funnel Plots

**Figure S1**

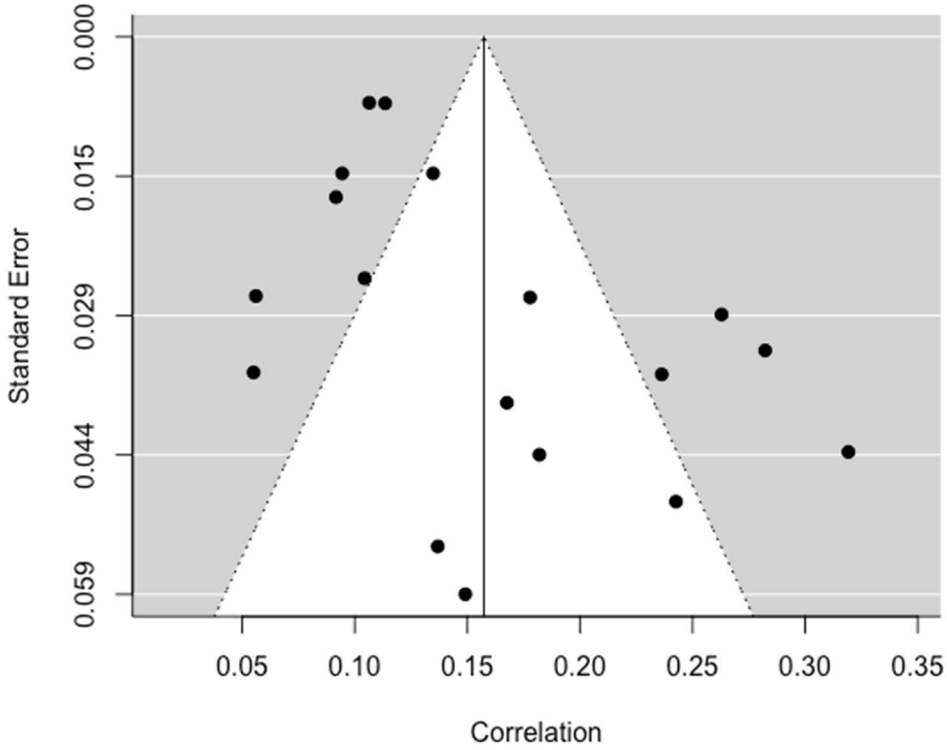
*Funnel Plot for the Externalizing Behavior Meta-Analysis*




*Note*. The white dots illustrate that 21 effect sizes were missing on the left side, indicating that the estimated mean effect may be an overestimation of the true effect. This implies that the results of meta-analysis on externalizing behavior problems may have been affected by publication bias.

**Figure S2**

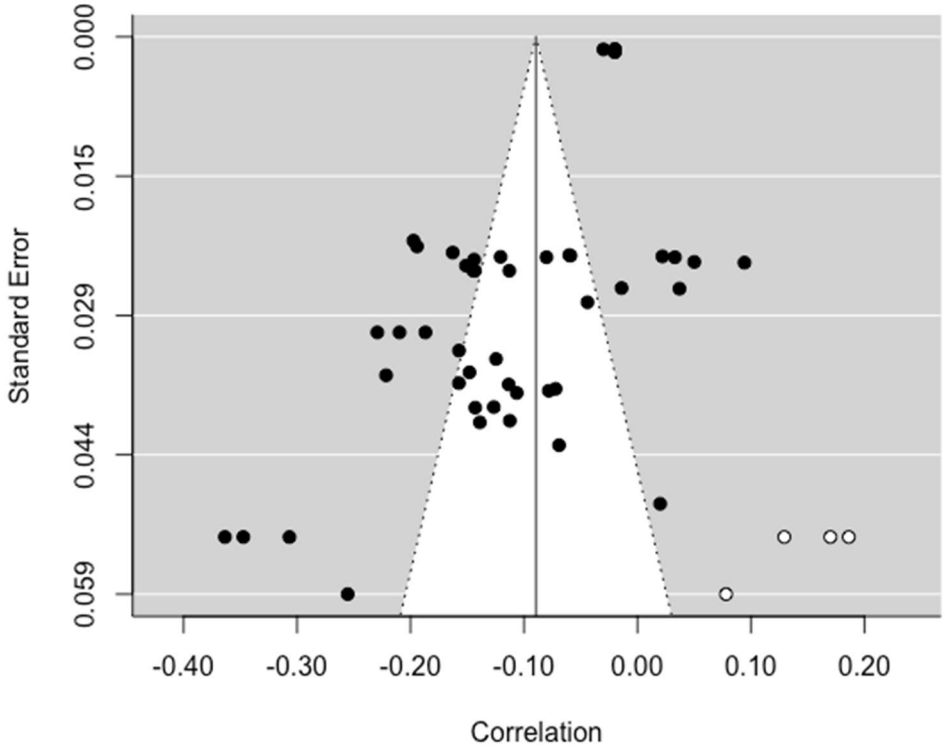
*Funnel Plot for the Internalizing Behavior Meta-Analysis*




*Note*. No effect sizes had to be imputed according to the trim-and-fill algorithm, implying there were no indications for publication bias.

**Figure S3**

*Funnel Plot for the School Performance Meta-Analysis*




*Note*. The white dots illustrate that 4 effect sizes were imputed on the right side to restore the symmetry of the plot, indicating that the estimated mean effect may be an underestimation of the true effect. These results reveal that the results may have been affected by (selection) bias.