Supplementary Material

The science of child and adolescent mental health in Greece: a nationwide systematic review

European Child & Adolescent Psychiatry

Authors and Affiliations

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Supplementary Table 1 - Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) Checklist

Section and Topic	Item #	Checklist item	Location where item is reported
TITLE			
Title	1	Identify the report as a systematic review.	1
ABSTRACT			
Abstract	2	See the PRISMA 2020 for Abstracts checklist.	3
INTRODUCTION			
Rationale	3	Describe the rationale for the review in the context of existing knowledge.	4
Objectives	4	Provide an explicit statement of the objective(s) or question(s) the review addresses.	4
METHODS			
Eligibility criteria	5	Specify the inclusion and exclusion criteria for the review and how studies were grouped for the syntheses.	5-10
Information sources	6	Specify all databases, registers, websites, organisations, reference lists and other sources searched or consulted to identify studies. Specify the date when each source was last searched or consulted.	5
Search strategy	7	Present the full search strategies for all databases, registers and websites, including any filters and limits used.	S1
Selection process	8	Specify the methods used to decide whether a study met the inclusion criteria of the review, including how many reviewers screened each record and each report retrieved, whether they worked independently, and if applicable, details of automation tools used in the process.	5-7
Data collection process	9	Specify the methods used to collect data from reports, including how many reviewers collected data from each report, whether they worked independently, any processes for obtaining or confirming data from study investigators, and if applicable, details of automation tools used in the process.	7-10
Data items	10a	List and define all outcomes for which data were sought. Specify whether all results that were compatible with each outcome domain in each study were sought (e.g. for all measures, time points, analyses), and if not, the methods used to decide which results to collect.	5-10
	10b	List and define all other variables for which data were sought (e.g. participant and intervention characteristics, funding sources). Describe any assumptions made about any missing or unclear information.	5-10
Study risk	11	Specify the methods used to assess risk of bias in the included studies,	7-10

Section and Topic	Item #	Checklist item	Location where item is reported
of bias assessment		including details of the tool(s) used, how many reviewers assessed each study and whether they worked independently, and if applicable, details of automation tools used in the process.	
Effect measures	12	Specify for each outcome the effect measure(s) (e.g. risk ratio, mean difference) used in the synthesis or presentation of results.	7-10
Synthesis methods	13a	Describe the processes used to decide which studies were eligible for each synthesis (e.g. tabulating the study intervention characteristics and comparing against the planned groups for each synthesis (item #5)).	7-10
	13b	Describe any methods required to prepare the data for presentation or synthesis, such as handling of missing summary statistics, or data conversions.	7-10
	13c	Describe any methods used to tabulate or visually display results of individual studies and syntheses.	7-10
	13d	Describe any methods used to synthesize results and provide a rationale for the choice(s). If meta-analysis was performed, describe the model(s), method(s) to identify the presence and extent of statistical heterogeneity, and software package(s) used.	7-10
	13e	Describe any methods used to explore possible causes of heterogeneity among study results (e.g. subgroup analysis, meta-regression).	NA
	13f	Describe any sensitivity analyses conducted to assess robustness of the synthesized results.	NA
Reporting bias assessment	14	Describe any methods used to assess risk of bias due to missing results in a synthesis (arising from reporting biases).	NA
Certainty assessment	15	Describe any methods used to assess certainty (or confidence) in the body of evidence for an outcome.	7-10
RESULTS			
Study selection	16a	Describe the results of the search and selection process, from the number of records identified in the search to the number of studies included in the review, ideally using a flow diagram.	10
	16b	Cite studies that might appear to meet the inclusion criteria, but which were excluded, and explain why they were excluded.	10
Study characteristics	17	Cite each included study and present its characteristics.	S5
Risk of bias in studies	18	Present assessments of risk of bias for each included study.	S5

Section and Topic	Item #	Checklist item	Location where item is reported
Results of individual studies	19	For all outcomes, present, for each study: (a) summary statistics for each group (where appropriate) and (b) an effect estimate and its precision (e.g. confidence/credible interval), ideally using structured tables or plots.	S5
Results of syntheses	20a	For each synthesis, briefly summarise the characteristics and risk of bias among contributing studies.	NA
	20b	Present results of all statistical syntheses conducted. If meta-analysis was done, present for each the summary estimate and its precision (e.g. confidence/credible interval) and measures of statistical heterogeneity. If comparing groups, describe the direction of the effect.	NA
	20c	Present results of all investigations of possible causes of heterogeneity among study results.	NA
	20d	Present results of all sensitivity analyses conducted to assess the robustness of the synthesized results.	NA
Reporting biases	21	Present assessments of risk of bias due to missing results (arising from reporting biases) for each synthesis assessed.	NA
Certainty of evidence	22	Present assessments of certainty (or confidence) in the body of evidence for each outcome assessed.	S5
DISCUSSION			
Discussion	23a	Provide a general interpretation of the results in the context of other evidence.	11-12
	23b	Discuss any limitations of the evidence included in the review.	11-12
	23c	Discuss any limitations of the review processes used.	11-12
	23d	Discuss implications of the results for practice, policy, and future research.	11-12
OTHER INFORMATION			
Registration and protocol	24a	Provide registration information for the review, including register name and registration number, or state that the review was not registered.	4
	24b	Indicate where the review protocol can be accessed, or state that a protocol was not prepared.	4
	24c	Describe and explain any amendments to information provided at registration or in the protocol.	4
Support	25	Describe sources of financial or non-financial support for the review, and the role of the funders or sponsors in the review.	3
Competing	26	Declare any competing interests of review authors.	3

Section and Topic	Item #	Checklist item	Location where item is reported
interests			
Availability of data, code and other materials	27	Report which of the following are publicly available and where they can be found: template data collection forms; data extracted from included studies; data used for all analyses; analytic code; any other materials used in the review.	10, S5

Supplementary Table 2 - Search terms and results searched in PubMed (adapted to other databases syntax whenever necessary)

BLOCK A: children and adolescents

((((((((((((((((((((((((adolesc*[Title]) OR preadolesc*[Title]) OR pre-adolesc*[Title]) OR
child*[Title]) OR boy*[Title]) OR girl*[Title]) OR infant*[Title]) OR juvenil*[Title]) OR
minors[Title]) OR paediatri*[Title]) OR pediatri*[Title]) OR pubescen*[Title]) OR puberty[Title]) OR school*[Title]) OR student*[Title]) OR teen*[Title]) OR young[Title]) OR youth*[Title]) OR class*[Title]) OR orphan*[Title]) OR high-school[Title]) OR "high school"[Title]) OR preschool*[Title]) OR pre-school*[Title])

A: 1,895,882 results

+ BLOCK B: Greece

("Greece" or "Greek")

A + B: 9,897 results

+ BLOCK C: Mental health

("Mental disorders"[Mesh terms] OR Autism OR Enuresis OR Encopresis OR ADHD OR "Intellectual disability" OR "Mental retardation" OR "Oppositional Defiant Disorder" OR "Conduct Disorder" OR "Depression" OR "Bipolar" OR "Disruptive Mood Dysregulation Disorder" OR "Suicide" OR "Suicidality" OR "Self-harm" OR "Obsessive-compulsive disorder" OR "Trauma" OR "PTSD" OR "Mutism" OR "Substance abuse" OR "Cannabis" OR "Alcohol" OR "Drug abuse" OR "Anorexia" OR "Bulimia" OR "Eating disorder" OR "Borderline" OR "Personality disorder" OR "Schizophrenia" OR "Psychosis" OR "Mental health" OR "Quality of life" OR "Well-being")

A + B + C: 1524 results

Supplementary Table 3 - Extracted results for each psychometric property

Psychometric property	Information extracted from primary studies
Structural validity	Kind of analysis (e.g., exploratory factor analysis, principal component analysis, or confirmatory factor analysis) How many factors best accounted for how much of the variance Results of statistical procedures (e.g., Root Mean Square Error of Approximation (RMSEA), Comparative Fit Index (CFI), Standardized Root Mean Residuals (SRMS))
Internal consistency	Cronbach's alpha or equivalent
Cross-cultural validity	Multi-group confirmatory factor analysis with measurement invariance evaluation
Inter-rater reliability	Intraclass correlation coefficient, pearson or spearman correlation, kappa score, or equivalent statistics
Test-retest reliability	Intraclass correlation coefficient, pearson or spearman correlation, kappa score, or equivalent statistics
Measurement error	Statistics on the patient's score error (e.g., standard error measurement, smallest detectable change, or limits of agreement)
Criterion validity	Performance of the instrument against a gold standard (e.g., area under the curve, sensitivity, and specificity)
Construct validity	Correlation coefficients with other instruments
Responsiveness	Whether the instrument detected statistically significant differences in measures over time (e.g., after an intervention)

Supplementary Table 4 - Coding for reporting information on translation and on study development in summary table.

+	A translation process was undertaken within the study with at least a back-and-forth translation procedure.
-	A translation process was undertaken within the study with no back-and-forth translation procedure.
P	The study uses a previously translated instrument.
D	The study develops a new instrument.
G	The study uses an instrument that was developed originally in Greek.

Supplementary Table 5 - Coding for reporting information on psychometric properties in summary table.

+	The property was measured and the study provides positive evidence according to standard definitions from COSMIN, except for adapted definition for responsiveness ● **Structural validity** with CFA with CFI >0.95/RMSEA <0.06 ● **Internal consistency** with Cronbach's alpha > 0.7 ● **Reliability** with Pearson's *r*, ICC or weighted Kappa ≥ 0.70 ● **Cross-cultural validity** with no differences between group factors; reliability with ICC or Kappa >= 0.70 ● **Measurement error** with SDC or LoA < MIC ● **Criterion validity** with correlation with gold standard >= 0.70 ● **Construct validity** with correlations superior 0.10 or 0.5, depending on the hypothesis ● **Responsiveness** statistically significant differences between time-points
-	The property was measured and the study provides negative evidence according to standard definitions (e.g., Cronbach's alpha < 0.7 for internal consistency, confirmatory factor analyses with CFI <0.95/RMSEA >0.06 for structural validity)
?	The property was not measured or there is not enough information reported.

Note: this is a digest overview of criteria. For full criteria, refer to Consensus-based Standards for the selection of health Measurement Instruments Manual (COSMIN).[25] For responsiveness, the manual considered the area under the curve as the parameter for sufficiency (+), a statistic that was not provided in any of the studies we extrated. Therefore, we adopted as our standard procedure to consider sufficient ("+") evidence of an instrument's responsiveness when it generated a statistically significant result in pre-post comparisons in clinical trials. When differences were not significant, we deemed the evidence inconclusive and classified it as not measured ("?"). **Abbreviations**: Confirmatory Factor Analysis (CFA), Comparative Fit Index (CFI), Intraclass Correlation Coefficient (ICC), Limits of Agreement (LoA), Minimal Important Change (MIC), Root Mean Square Error of Approximation (RMSEA), Smallest Detectable Change (SDC).

Supplementary Table 6 - Reasons for exclusion during screening

Primary Screening		
Wrong outcome: 532 Wrong age: 402 Wrong population: 357 Wrong study design: 206	Wrong country: 70 Wrong publication type: 41 Duplicate: 26	Background article: 21 Wrong drug: 5 Wrong study duration: 2
Secondary Screening		
Prevalence Studies	Instrument Studies	Intervention Studies
Unavailable data: 51 Wrong population: 22 Wrong outcome: 20 Wrong publication type: 17 Repeated sample: 16 Not representative: 11 Wrong age: 10 Wrong country: 5 Full text not located: 4 Wrong study design: 2	Wrong country: 8 Only applies an instrument already extracted: 11 Wrong study design: 5 Wrong population: 5 Multiple country study that does not present data for each country: 3 Full-text not found: 2 Repeated publication: 3 Develops an instrument that is not systematized and does not present data on it: 4 Wrong publication type: 1 Wrong outcome: 2 Repeated dataset: 2	Wrong study design: 14 Wrong publication type: 12 Wrong outcome: 9 Wrong population: 5 Data not discriminated for greek participants: 3 Wrong country: 1