


REVISIÓN SISTEMÁTICA DEL IMPACTO DE LOS DETERMINANTES SOCIALES EN LA MORBILIDAD PEDIÁTRICA

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INDICE

- Determinantes sociales
 - Procedimiento de una Revisión sistemática
 - Resultados
 - Discusión
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El autor declara que no hay conflictos de interés



DETERMINANTES SOCIALES

“Las condiciones en las que Las personas nacen, crecen, trabajan, viven y envejecen, y el conjunto más amplio de fuerzas y sistemas que configuran las condiciones de vida”.

Cinco áreas clave

Estabilidad económica

Educación

Contexto social y comunitario

Salud y atención comunitaria

Barrio y construcción.

PROCEDIMIENTO



1. Objetivo

Considerar diferencias en la incidencia y/o prevalencia de las patologías (codificadas según CIE-10 o CIAP) en relación a la exposición a los determinantes sociales de la salud en edad pediátrica.

2. Búsqueda general y planteamiento de la pregunta a revisar → PREGUNTA PICO

 frontiers | Frontiers in Public Health

TYPE: Review
PUBLISHED: 27 March 2023
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 Check for updates

Social determinants of multimorbidity patterns: A systematic review

OPEN ACCESS

EDITED BY
Cyrille Delpierre,
INSERM U1027 Epidémiologie et analyses en
santé publique: Risques, Maladies Chroniques
et Usages, France

¿Cómo impactan los Determinantes Sociales de la Salud en la morbilidad de la población pediátrica?

PROCEDIMIENTO

3. Diseño del protocolo y registro de la revisión sistemática en **PROSPERO**

-Registro internacional de revisiones sistemática de la Universidad de York.

-Registro el 19/10/2023
CRD42023466709.

PROSPERO
International prospective register of systematic reviews

NHS
National Institute for
Health Research

UNIVERSITY *of York*
Centre for Reviews and Dissemination

Systematic review

This record cannot be edited because it has been marked as out of scope

1. * Review title.

Give the title of the review in English

Impact of the Social Determinants of Health on the morbidity of pediatric population: A review of systematic review

2. Original language title.

For reviews in languages other than English, give the title in the original language. This will be displayed with the English language title.

3. * Anticipated or actual start date.

Give the date the systematic review started or is expected to start.

24/10/2023

PROCEDIMIENTO



4. Estrategia de Búsqueda

“social risk” OR “social determinant” OR “social determinants” OR “socioeconomic determinant”[tiab] OR “socioeconomic determinants”[tiab] OR “health determinant”[tiab] OR “socioeconomic factor”[tiab] OR “socioeconomic factors”[tiab] OR “health determinants”[tiab] OR “social determinates”[tiab] OR “adverse childhood event” OR “adverse childhood events”
"Social Determinants of Health"[Mesh] OR "Socioeconomic Factors"[Mesh] OR (seek [tiab] AND model*[tiab]) OR (ace [tiab] AND childhood[tiab]) AND (child[mesh] OR child health services[mesh] OR adolescent health [mesh] OR pediatrics[mesh] OR Infan*[tiab] OR newborn*[tiab] OR new-born*[tiab] OR perinat*[tiab] OR neonat*[tiab] OR baby[tiab] OR baby* [tiab] OR babies[tiab] OR toddler* [tiab] OR minors[tiab] OR minors* [tiab] OR boy[tiab] OR boys[tiab] OR boyhood[tiab] OR girl*[tiab] OR kid [tiab] OR kids[tiab] OR child[tiab] OR childs[tiab] OR children*[tiab] OR schoolchild*[tiab] OR schoolchild [tiab] OR school child[tiab] OR school child*[tiab] OR adolescen*[tiab] OR juvenil*[tiab] OR youth*[tiab] OR teen*[tiab] OR underage*[tiab] OR pubescen*[tiab] OR pediatrics[mesh] OR pediatric*[tiab] OR paediatric* [tiab] OR school[tiab] OR school* [tiab] OR prematur*[tiab] OR preterm*[tiab] OR child welfare [mesh] OR pediatricians[mesh] OR pediatrician*[tiab])

Filters: Age under 18 years, last 5 years, in Spanish or English, Meta-Analysis, Systematic Review.

- MEDLINE/OVID (1950-Presente)
- Embase/ OVID SP (1980-Presente)
- Science Citation Index Expanded/ ISI Web of Science (1981-Presente)
- The Cochrane Library Database

PROCEDIMIENTO



5. Se realiza cribado por pares independientes siguiendo los siguientes criterios de inclusión:

- ✓ Revisiones sistemáticas y metaanálisis
- ✓ Idioma: Inglés y español
- ✓ Últimos 5 años. Desde 2018 al 2023.
- ✓ Edad pediátrica (< 18 años)

En primer lugar se realizó cribado por título y Abstract y tras selección se realizó por texto completo.

PROCEDIMIENTO

6. Evaluar riesgo de sesgo con la herramienta **AMSTAR-2** en artículos que hayan pasado cribado por texto completo
- Herramienta de evaluación crítica de revisiones sistemáticas de estudios de intervenciones de salud.
 - Cuestionario que contiene 16 dominios

Cuadro 1. Dominios críticos de la herramienta AMSTAR-2

1.	Protocolo registrado antes de la revisión (ítem 2)
2.	Adecuada búsqueda en la literatura (ítem 4)
3.	Justificación de los estudios excluidos (ítem 7)
4.	Riesgo de sesgo de los estudios individuales incluidos (ítem 9)
5.	Métodos meta-analíticos apropiados (ítem 11)
6.	Consideración del riesgo de sesgo en la interpretación de los resultados de la revisión (ítem 13)
7.	Evaluación de la presencia y el impacto probable del sesgo de publicación (ítem 15)

PROCEDIMIENTO



Tabla 1. Valoración de la confianza general en los resultados de la revisión

CONFIANZA	JUSTIFICACIÓN
Alta	Ninguna debilidad crítica y hasta una no crítica: la RS proporciona un resumen exacto y completo de los resultados de los estudios disponibles.
Media	Ninguna debilidad crítica y más de una debilidad no crítica (aunque si son muchas podría justificarse una baja confianza): la RS tiene debilidades, pero no hay defectos críticos, pudiendo proporcionar un resumen preciso de los resultados de los estudios disponibles.
Baja	Hasta una debilidad crítica, con o sin puntos débiles no críticos: la RS puede no proporcionar un resumen exacto y completo de los estudios disponibles
Críticamente Baja	Más de una debilidad crítica, con o sin debilidades no críticos: la RS no es confiable

RS: revisión sistemática

Shea BJ y col. BMJ. 2017;

TABLA DE EXTRACCIÓN DE DATOS



VARIABLES
Título
Autor
Año
Resumen
Estrategia de Búsqueda
Nº de estudios incluidos
Nº de participantes
Objetivo
Población
Periodo de estudio
Riesgo de Sesgo
Resultados
Framework
Conclusiones

PROCEDIMIENTO

9. Para todos los puntos anteriores nos ayudamos del software **COVIDENCE**.



Review Summary

Settings PRISMA Export

Import references	227 total duplicates removed 0 auto-marked as ineligible	Import
Title and abstract screening	1012 irrelevant 0 studies to screen	
Full text review	21 excluded 152 studies to screen	
Extraction	0 extracted 15 studies to extract	



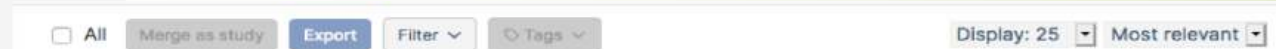
Review Summary

Settings PRISMA Export

Import references	227 total duplicates removed 0 auto-marked as ineligible	Import
Title and abstract screening	1012 irrelevant 0 studies to screen	
TEAM PROGRESS	Arantza, you have screened 24 studies	
1208 DONE	0 CONFLICTS	
0 ONE VOTE	0 NO VOTES	
Team settings		

Full text review 21 excluded 152 studies to screen

Extraction 0 extracted 15 studies to extract



All	Merge as study	Export	Filter	Tags	Display: 25	Most relevant
<input type="checkbox"/>	#7 - AlmeidaLL 2021	1st Reviewer	2nd Reviewer	Consensus		
	Social isolation and its impact on child and adolescent development: a systematic review.	Unassigned	Unassigned	Consensus		
	Almeida ILL; Rego JF; Teixeira ACG; Moreira MR Rev Paul Pediatr 2021;40():e2020385 Brazil 2021 DOI: 10.1590/1984-0462/2022/40/2020385 Ref ID: 34614137	QUALITY ASSESSMENT				
	Full text Abstract	Create a template to begin quality assessment				
	ZJJsQRsTFNYrs7fJKZSgsv.pdf Primary Full text uploaded by Covidence (Open Access)	DATA EXTRACTION				
	Manage full text	Create a template to begin data extraction				
	Note History Duplicate Move to Full text	Manage Reviewers				

<input type="checkbox"/>	#711 - Narciso 2019	1st Reviewer	2nd Reviewer	Consensus		
	Behavioral, contextual and biological factors associated with obesity during adolescence: A systematic review.	Unassigned	Unassigned	Consensus		
	Narciso J; Silva AJ; Rodrigues V; Monteiro MJ; Almeida A; Saavedra R; Costa AM PLoS One 2019;14(4):e0214941 United States 2019 DOI: 10.1371/journal.pone.0214941 Ref ID: 30958850	QUALITY ASSESSMENT				
	Full text Abstract	Create a template to begin quality assessment				
	file.pdf Primary	DATA EXTRACTION				
		Create a template to begin data extraction				
		Manage Reviewers				

Need help?

CRITERIOS PRISMA



PRISMA 2020 Checklist

Section and Topic	Item #	Checklist item	Location where item is reported
TITLE			
Title	1	Identify the report as a systematic review.	
ABSTRACT			
Abstract	2	See the PRISMA 2020 for Abstracts checklist.	
INTRODUCTION			
Rationale	3	Describe the rationale for the review in the context of existing knowledge.	
Objectives	4	Provide an explicit statement of the objective(s) or question(s) the review addresses.	
METHODS			
Eligibility criteria	5	Specify the inclusion and exclusion criteria for the review and how studies were grouped for the syntheses.	
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.	
Search strategy	7	Present the full search strategies for all databases, registers and websites, including any filters and limits used.	
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.	
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.	
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.	
	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.	
Study risk of bias assessment	11	Specify the methods used to assess risk of bias in the included studies, 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.	
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)).	
	13b	Describe any methods required to prepare the data for presentation or synthesis, such as handling of missing summary statistics, or data conversions.	
	13c	Describe any methods used to tabulate or visually display results of individual studies and syntheses.	
	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.	
	13e	Describe any methods used to explore possible causes of heterogeneity among study results (e.g. subgroup analysis, meta-regression).	
	13f	Describe any sensitivity analyses conducted to assess robustness of the synthesized results.	
Reporting bias assessment	14	Describe any methods used to assess risk of bias due to missing results in a synthesis (arising from reporting biases).	
Certainty assessment	15	Describe any methods used to assess certainty (or confidence) in the body of evidence for an outcome.	

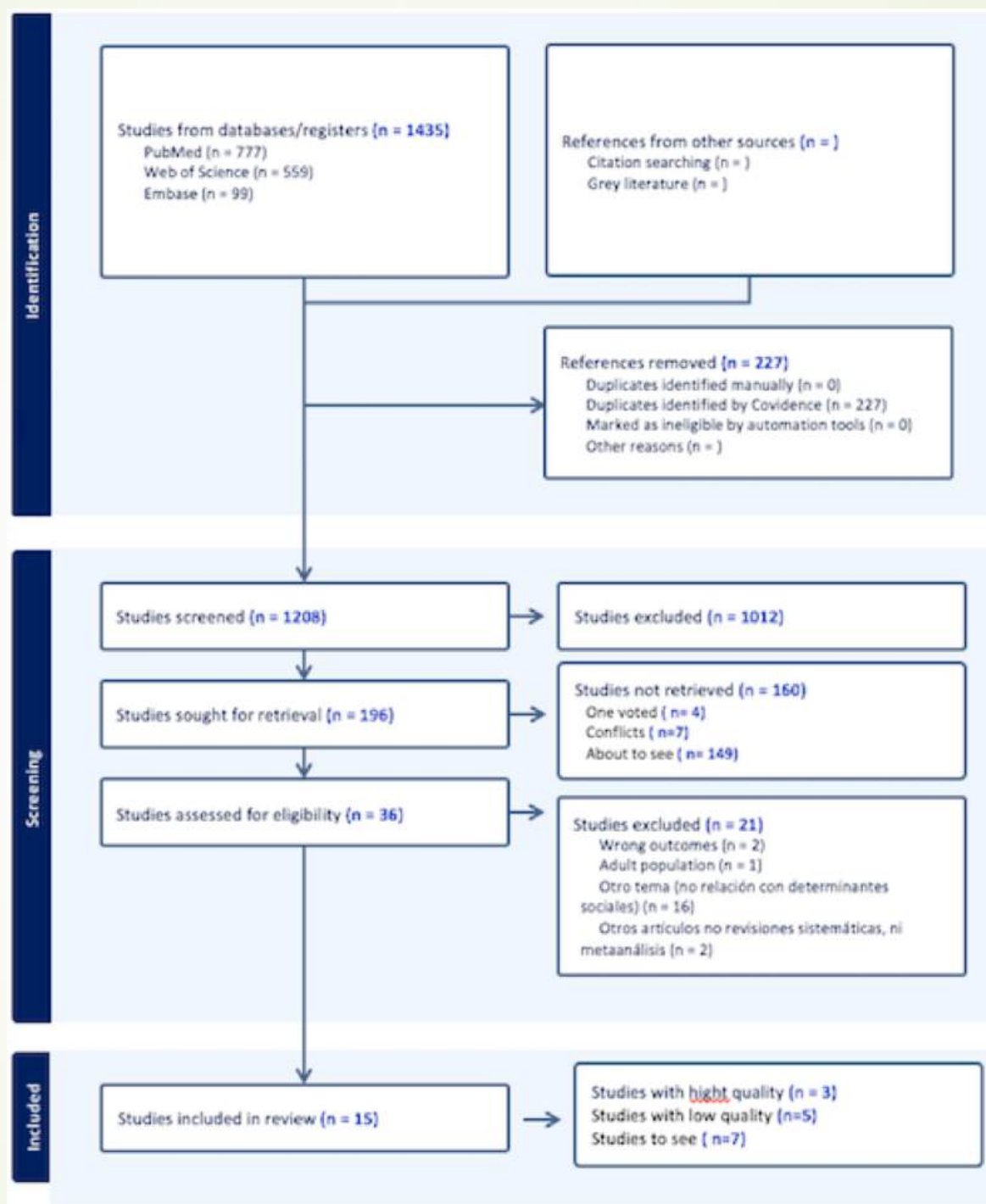
<https://www.prisma-statement.org/prisma-2020-checklist>



PRISMA 2020 Checklist

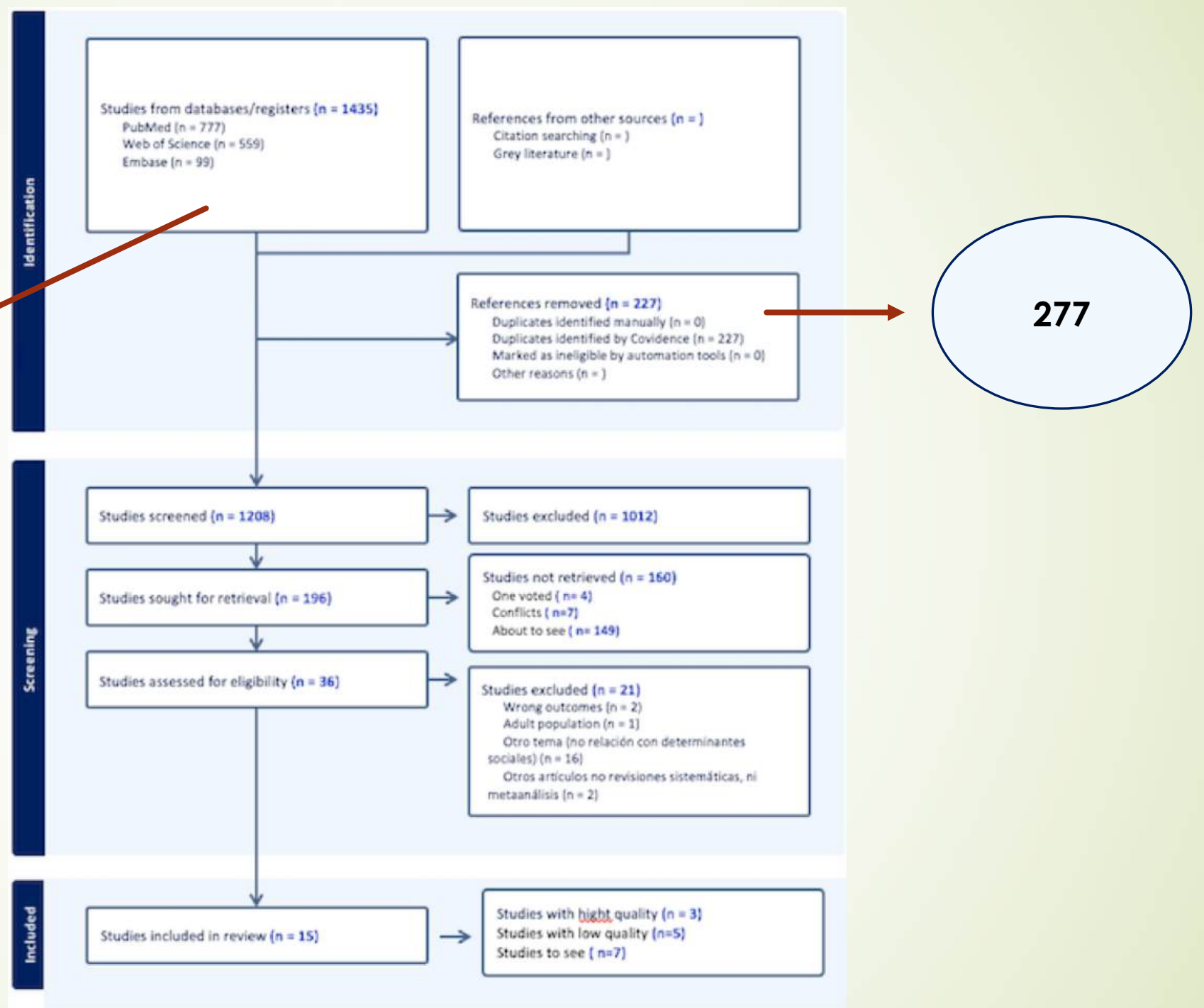
Section and Topic	Item #	Checklist item	Location where item is reported
RESULTS			
Study selection	16a	Describe the results of the search and selection process, from the number of records identified in the search to the number of studies included in the review, ideally using a flow diagram.	
	16b	Cite studies that might appear to meet the inclusion criteria, but which were excluded, and explain why they were excluded.	
Study characteristics	17	Cite each included study and present its characteristics.	
Risk of bias in studies	18	Present assessments of risk of bias for each included study.	
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.	
Results of syntheses	20a	For each synthesis, briefly summarise the characteristics and risk of bias among contributing studies.	
	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.	
	20c	Present results of all investigations of possible causes of heterogeneity among study results.	
	20d	Present results of all sensitivity analyses conducted to assess the robustness of the synthesized results.	
Reporting biases	21	Present assessments of risk of bias due to missing results (arising from reporting biases) for each synthesis assessed.	
Certainty of evidence	22	Present assessments of certainty (or confidence) in the body of evidence for each outcome assessed.	
DISCUSSION			
Discussion	23a	Provide a general interpretation of the results in the context of other evidence.	
	23b	Discuss any limitations of the evidence included in the review.	
	23c	Discuss any limitations of the review processes used.	
	23d	Discuss implications of the results for practice, policy, and future research.	
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.	
	24b	Indicate where the review protocol can be accessed, or state that a protocol was not prepared.	
	24c	Describe and explain any amendments to information provided at registration or in the protocol.	
Support	25	Describe sources of financial or non-financial support for the review, and the role of the funders or sponsors in the review.	
Competing interests	26	Declare any competing interests of review authors.	
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.	

RESULTADOS



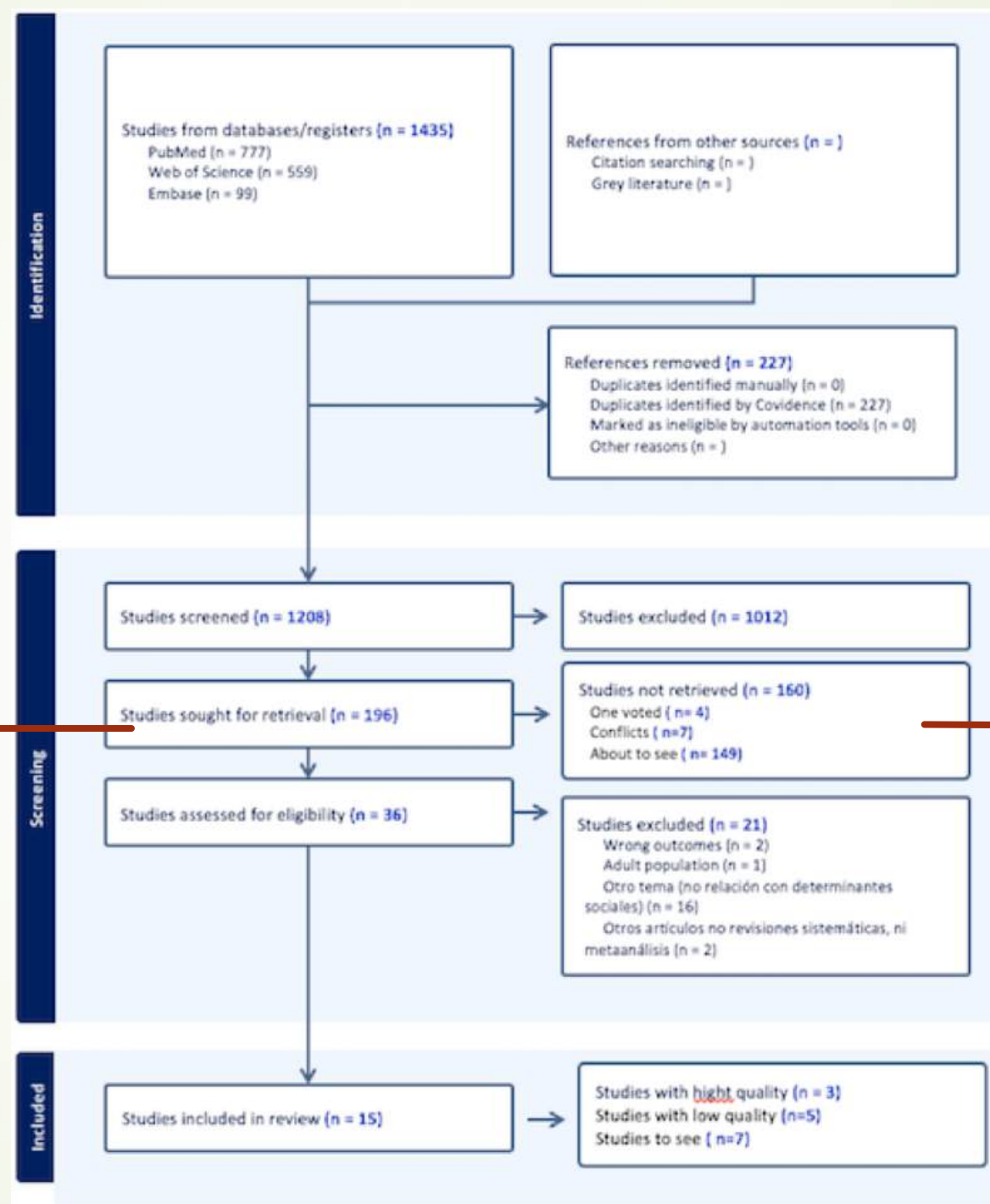
RESULTADOS

1435



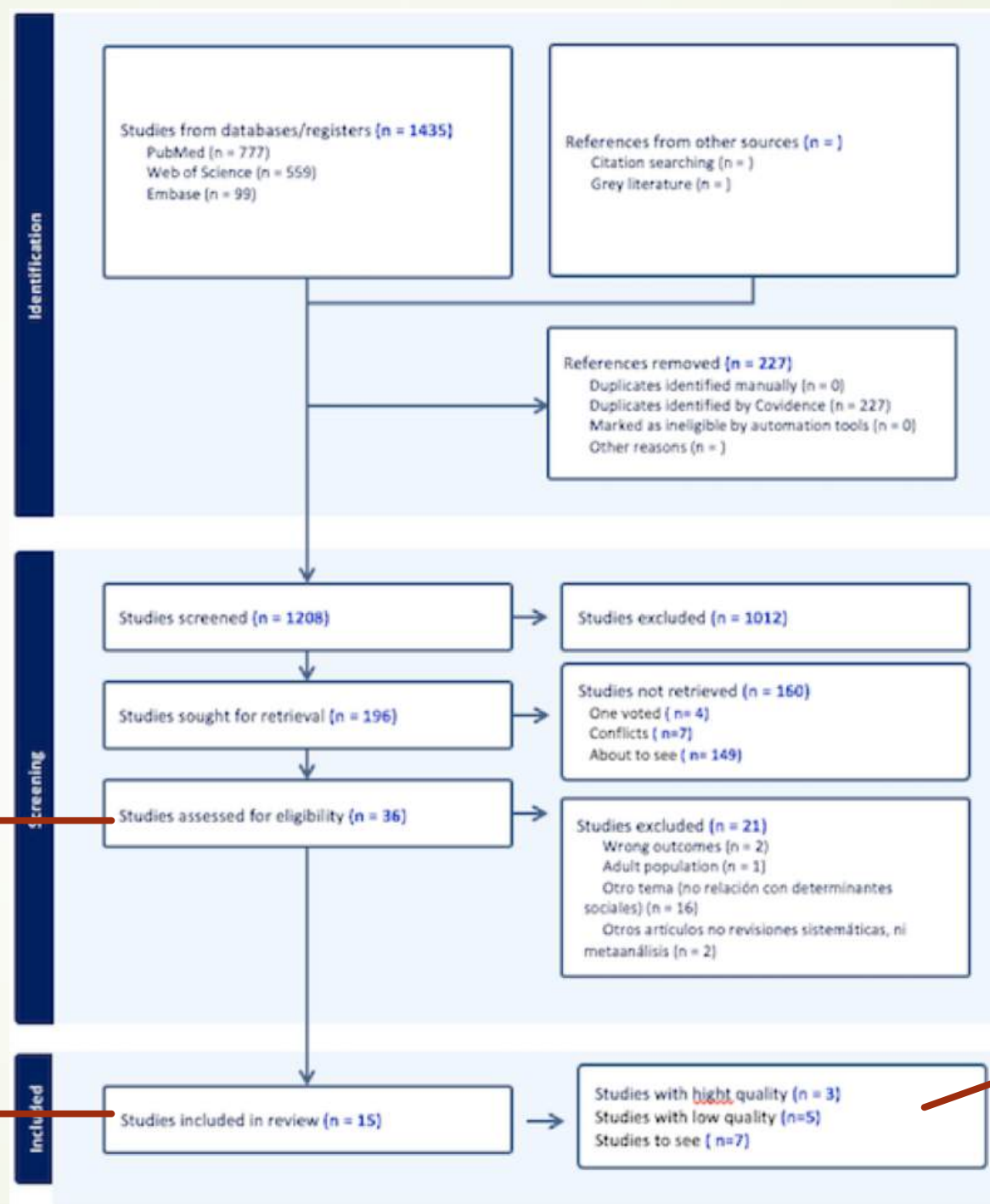
RESULTADOS

196



149 POR
CRIBAR
7 CONFLICTO
2 CON UN
VOTO

RESULTADOS



36

15

CALIDAD ALTA/MED: 3
CALIDAD BAJA: 5
POR REVISAR: 7

RESULTADOS

Open Access

Review

Health Inequalities in Children and Adolescents: A Scoping Review of the Mediating and Moderating Effects of Family Characteristics

Risk factors for the development of tuberculosis among the pediatric population: a systematic review and meta-analysis

The Temporal Impact of Economic Insecurity on Child Maltreatment: A Systematic Review

[Aislinn Conrad-Hiebner](#)  and [Elizabeth Byram](#) [View all authors and affiliations](#)

[Volume 21, Issue 1](#) | <https://doi.org/10.1177/1524838018756122>

RESULTADOS

POBLACION TOTAL	Nº ARTICULOS INCLUIDOS	OBJETIVO	CALIDAD
50.957	50	Efectos de las características familiares en las desigualdades en salud durante la primera infancia	Media
2373	26	Establecer relación entre la inseguridad económica familiar y el maltrato infantil	Alta
3095	14	Establecer factores de riesgo asociados con la tuberculosis en la población pediátrica.	Media

RESULTADOS

MORBILIDAD	DETERMINANTES SOCIALES
Síntomas Depresivos	Bajo nivel socioeconómico Familias desestructuradas Mala relación con los progenitores Conflicto matrimonial Estrés familiar
Consumo Tabaco	Bajo nivel socioeconómico Bajo nivel educativo en entorno familiar
Enfermedades respiratorias - Tuberculosis	Bajo nivel socioeconómico Problemas de hacinamiento Sin escolarización Exposición a humo tabaco en ambiente familiar
Alteraciones en el IMC	Bajo nivel socioeconómico Dificultades para una vivienda y alimentos Padres con alteraciones en IMC
Alteraciones en TA y Colesterol	Bajo nivel socioeconómico Familias desestructuradas

RESULTADOS

MORBILIDAD	DETERMINANTES SOCIALES
Trastornos conducta alimentaria en adolescentes de 13 a 16 años	Bajo nivel educativo Relaciones familiares inestables
Maltrato psicológico/físico	Bajo nivel socioeconómico Estrés familiar Dificultad para una vivienda y alimentos Depresión en progenitores Abuso de sustancias progenitores
Comportamientos problemáticos en adolescentes	Bajo nivel socioeconómico Familias desestructuradas Sin apoyo familiar

DISCUSIÓN

Dificultad a la hora de acotar los términos MESH para realizar una búsqueda dirigida ya que los determinantes sociales están especificados por el Ministerio pero no tenemos codificación de los mismos.

Encontramos mucha bibliografía sobre determinantes sociales pero la mayoría fueron síntesis narrativas, encuestas realizadas a la población, protocolos, datos extraídos de protocolos que no presentan una buena calidad.

En los artículos seleccionados no especifica los framework por tanto podemos considerarlo una debilidad de los estudios incluidos.

Durante la búsqueda no se encontró ninguna revisión sistemática que relacionara morbilidad pediátrica con determinantes sociales, para compararla con la que estamos realizando.

En función de los artículos finalmente incluidos se valorará realizar análisis por subgrupos en función de las diferentes patologías.



CONCLUSIONES

- Los determinantes sociales influyen en la salud infantil.
- La salud mental es la morbilidad más frecuentemente analizada en los estudios incluidos hasta ahora.
- Los determinantes sociales que con más frecuencia se han analizado en los tres estudios incluidos hasta ahora son la situación socioeconómica familiar.
- Hemos identificado la necesidad de codificar los determinantes sociales en la historia clínica para poder realizar mejores investigaciones y mejor prevención primaria.
- Es necesario realizar estudios más estructurados y abarcando más áreas de morbilidad para obtener resultados más concretos y comparables.

BIBLIOGRAFIA

- Votruba-Drzal, E.; Miller, P.; Betancur, L.; Spielvogel, B.; Kruzik, C.; Coley, R.L. Family and community resource and stress processes related to income disparities in school-aged children's development. *J. Educ. Psychol.* **2020**.
- Jenkins HE, Yuen CM, Rodriguez CA, Nathavitharana RR, McLaughlin MM, Donald P, Marais BJ, Becerra MC (2017)
- Mortality in children diagnosed with tuberculosis: a systematic review and meta-analysis. *Lancet Infect Dis* 17(3):285–295
- Belsky J. (1993). Etiology of child maltreatment: A developmental-ecological analysis. *Psychological Bulletin*, 114, 413–434.
- Berger L. M., Waldfogel J. (2011). *Economic determinants and consequences of child maltreatment* (OECD Social, Employment and Migration Working Papers, No. 111). Paris, France: OECD
- Cadzow S. P., Armstrong K. L., Fraser J. A. (1999). Stressed parents with infants: Reassessing physical abuse risk factors. *Child Abuse & Neglect*, 23, 845–853
- Cancian M., Yang M. Y., Slack K. S. (2013). The effect of child support income on the risk of child maltreatment. *Social Service Review*, 87, 417–437.
- Dworsky A., Courtney M. E., Zinn A. (2007). Child, parent, and family predictors of child welfare services involvement among TANF applicant families. *Children and Youth Services Review*, 29, 802–820.
- SDH. Closing the Gap in a Generation: Health Equity through Action on the Social Determinants of Health. Final Report of the Commission on Social Determinants of Health; World Health Organization: Geneva, Switzerland, 2008.
- Pillas, D.; Marmot, M.; Naicker, K.; Goldblatt, P.; Morrison, J.; Pikhart, H. Social inequalities in early childhood health and development: A European-wide systematic review. *Pediatr. Res.* **2014**, 76, 418–424.

BIBLIOGRAFIA

- Human Early Learning Partnership; Commission on Social Determinants of Health. Early Child Development: A Powerful Equalizer: Final Report for the World Health Organization's Commission on the Social Determinants of Health; Siddiqi, A., Irwin, L.G., Hertzman, C., Eds.; Human Early Learning Partnership: Vancouver, BC, Canada, 2007
- Kramer, M.R.; Schneider, E.B.; Kane, J.B.; Margerison-Zilko, C.; Jones-Smith, J.; King, K.; Davis-Kean, P.; Grzywacz, J.G. Getting under the skin: Children's health disparities as embodiment of social class. *Popul. Res. Policy Rev.* **2017**, *36*, 671–697.
- Rattay, P.; von der Lippe, E.; Mauz, E.; Richter, F.; Hölling, H.; Lange, C.; Lampert, T. Health and health risk behaviour of adolescents—Differences according to family structure. Results of the German KiGGS cohort study. *PLoS ONE* **2018**, *13*, e0192968
- Wachtler, B.; Hoffmann, S.; Rattay, P.; Sander, L. Systematic Review of Qualitative and Quantitative Studies on the Mediating and Moderating Role of Family Characteristics on Health Inequalities in School-Aged Children and Adolescents in Countries with Developed Economies
- Hoffmann, S.; Wachtler, B.; Sander, L.; Blume, M.; Hilger-Kolb, J.; Herke, M.; Matos Fialho, P.; Pischke, C.; Novelli, A.; Lampert, T.; et al. Health Inequalities among Infants and Pre-School Children: Protocol for a Scoping Review Examining the Moderating and Mediating Role of Contextual and Compositional Family Characteristics; Open Science Network: Vancouver, BC, Canada, 2020.
- Lampert, T.; Hoebel, J.; Kuntz, B.; Finger, J.D.; Hölling, H.; Lange, M.; Mauz, E.; Mensink, G.; Poethko-Müller, C.; Schienkiewitz, A.; et al. Health inequalities among children and adolescents in Germany. Developments over time and trends from the KiGGS study. *J. Health Monit.* **2019**, *4*, 15–37.
- Nazroo, J. Class and health inequality in later life: Patterns, mechanisms and implications for policy. *Int. J. Environ. Res. Public Health* **2017**, *14*, 1533.



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GRACIAS