Mega-map of systematic reviews and evidence and gap maps on the effectiveness of interventions to improve child welfare in low- and middle-income countries (LMICs)

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Submitted to the Coordinating Group of:

☐	Crime and Justice
☐	Education
	☐ Disability
☐	International Development
	☐ Nutrition
☐	Knowledge Translation and Implementation
☒	Social Welfare
☐	Methods
☐	Other:

Plans to co-register:

☒	No		
☐	Yes	☐ Cochrane	☐ Other
☐	Maybe		

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Scope of the mega-map

Full name: Mega-map of systematic reviews and evidence and gap maps on the effectiveness of interventions to improve child welfare in low- and middle-income countries (LMICs)

Short name: Mega-map on child welfare in low- and middle-income countries (LMICs)

The map will cover a broad range of interventions to improve child welfare in low and middle income countries. The map will include filters for children in vulnerable and conflict-affected situations. Given the very broad scope of the map it will include systematic reviews and evidence and gap maps, but not primary studies.

Background

It is estimated that nearly half (49.6%) of 3- and 4-year-old children in LMICs are failing to meet their potential with respect to their cognitive, socioemotional, or physical development.[1] Poverty, malnutrition, poor health, and unstimulating home environments are major risk factors, which detrimentally affect the cognitive, motor, and social-emotional development of children.[2] [3] One billion children globally experience some form of emotional, physical or sexual violence every year, and one child dies as a result of violence every five minutes.[4] Women and girls are invariably subjected to various forms of harmful practices including child marriage and female genital mutilation. Over 750 million women and girls alive today were married before 18 years of age.[5] The protection of children from all forms of violence is a fundamental right enshrined in the UN Convention on the Rights of the Child. The inclusion of a specific target (sustainable development goal (SDG) 16.2) in the 2030 Agenda for Sustainable Development to end all forms of violence against children added increased emphasis on the right of every child to live free from fear, neglect, abuse and exploitation.

In support of the 2030 Sustainable Development Agenda targets there is increased investment in generating sound evidence on effective strategies to improve child welfare interventions.

Child welfare interventions have been in use for decades; however, evidence for the effectiveness of child welfare interventions are often scattered, their value is possibly underestimated and their inclusion in national strategies and programmes is rare. Failure to effectively implement evidence-informed interventions represents a key obstacle in the progress of child-welfare system in many low and middle income countries toward achieving the United Nations Sustainable Development Goals (SDGs).[6] This is partly due to a weak evidence base that does not give policy makers and programme managers the information needed to make decisions.

Evidence-based research and multi-country experiences make a strong rationale for investing in child welfare programmes, especially for children at risk of developmental delay or with a disability. While evidence-based policy making is of increasing importance, many agencies commission systematic reviews to inform policy, but due to lack of a central repository, these

systematic reviews are often duplicated and lack in quality to clearly and correctly inform policy and practice.

Mega-maps are an important step in ongoing efforts to prioritize global evidence synthesis needs and global research priorities for child welfare interventions, and contribute to constructing answers to what works and under what conditions.

Objective

This mega-map will provide an overview of the existing evidence synthesis on the key outcome domains and interventions aimed at improving child welfare in low and middle income countries using an intervention-outcome framework. It will identify areas in which there are good bodies of synthesized knowledge to inform policy, and those areas in which there is little or no evidence synthesis.

The specific objectives are:
1. To build a systematic mapping of the evidence base to provide a visual overview of the distribution of evidence (both what is known and where there is little or no evidence synthesis) on the effectiveness of child welfare interventions aimed at improving child welfare services in low- and middle-income countries in one or more key outcome areas (safety, health, and learning and development).
2. To strategically identify key gaps in evidence synthesis and so identify priority research questions in consultation with stakeholders for undertaking priority EGMs and systematic reviews.

Existing maps and reviews

Both existing maps and reviews are more limited in scope than the proposed mega-map.

Evidence and gap maps:
Bakrania, S. A. Ghimire and N. Balvin (2017) Evidence gap map on adolescent well-being. Florence: UNICEF Office of Research-Innocenti.

Rankin, K, Cameron, DB, Ingraham, K, Mishra, A, Burke, J, Picon, M, Miranda, J and Brown, AN, (2015). Youth and transferable skills: an evidence gap map. 3ie Evidence Gap Report 2. New Delhi: International Initiative for Impact Evaluation (3ie).

Systematic reviews:
Britto, P. R., Ponguta, L. A., Reyes, C., & Karnati, R. (2015). A Systematic Review of Parenting Programmes for Young Children in Low-and Middle-Income Countries. New York, NY: United Nations Children's Fund.

Maynard BR, Solis MR, Miller VL, Brendel KE. Mindfulness-based interventions for improving cognition, academic achievement, behavior, and socioemotional functioning of primary and secondary school students. Campbell Systematic Reviews 2017:5

Arikpo D, Edet ES, Chibuzor MT, Odey F, Caldwell DM. Educational interventions for improving primary caregiver complementary feeding practices for children aged 24 months and under. Cochrane Database of Systematic Reviews 2018, Issue 5. Art. No.: CD011768. DOI: 10.1002/14651858.CD011768.pub2.

Interventions

The included interventions cover all main strategies to improve child welfare outcomes. The five main intervention categories are:

1. Early child development
2. Health and nutrition
3. Education
4. Social work and welfare
5. Social protection
6. Environment health including WASH
7. Governance

Table 1 lists the intervention sub-categories under each of these headings.

Table 1: Intervention categories and sub-categories

Intervention category	Intervention sub-category
Early child development	Early childhood health intervention
	Early childhood nutritional interventions
	Early childhood education and parenting
	Women/maternal education and empowerment
Health and nutrition	
	Antenatal care, childbirth and post-natal care by traditional birth attendants/skilled birth attendants (TBAs/SBAs)
	Childhood immunization
	Agricultural intervention/bio-fortification
	Nutritional supplementation program
	Management of severe acute malnutrition
	Community health interventions including community health workers (CHWs)
	Deworming
	Interventions for prevention and treatment of HIV/AIDS
	Prevention and management of childhood malaria
	Mass media campaigns on health education
	Health interventions for child health
	Maternal aid
	Mental health program
	School voucher/reduced fees
	Decentralization and local community participation

Education	School feeding program and midday meal
	School based health interventions
	Systemic renewal
	Alternative schooling/non-formal education
	School sanitation and water, sanitation and hygiene (WASH)
	Scholarship
	Teacher Incentives
	Teacher training
	Remedial education
	Pedagogical approach
Social work and welfare	
	Birth registration
	Child-trafficking preventions
	Intervention for child abuse
	Gender based violence program
	Substance abuse prevention
	Child protection services
Social protection	Social insurance schemes
	Labor market insurance
	Social assistance interventions
Environmental health including WASH	Improved sanitation and water
	Hygiene education
	Prevention of outdoor and indoor air pollution
	Prevention of environmental tobacco smoke
	Prevention of exposure to toxins such as lead, mercury and pesticides
	Safe places to play
	Traffic calming
Governance	Child rights
	Legislative reforms
	Child protection regulation

Population

The primary population of interest for this map of maps is children from low and middle income countries (LMICs). A child is an individual under the age of 18, as per the definition provided by the United Nation Convention on the Rights of a Child. LMICs are defined by World Bank as low income economies - those with a GNI less than $1,006; lower middle-income economies - those with a GNI per capita between $1,006 and $3,955; and upper middle-income economies - those with a GNI per capita between $3,956 and $12,235 (2018).

Population sub-groups of interest include: Orphans, children with disabilities, children belonging to ethnic minorities, child sex workers, malnourished children, child brides, isolated children/street children, children with HIV/AIDS and children in conflict and humanitarian settings, and different child age ranges (0-1 month, 1 month-2 years, 2-6 years, 6-12 years, 12-18 years).

Dimensions

In addition to intervention and outcomes, the following filters will be coded:

(1) Population sub-groups of interest include: Orphans, children with disabilities, children belonging to ethnic minorities, child sex workers, malnourished children, child brides, isolated children/street children, children with HIV/AIDS, and children in conflict and humanitarian settings, and different child age ranges (0-6, 7-17 and 13-18 years)

(2) Region: East Asia & Pacific, Europe & Central Asia, Latin America & Caribbean, Middle East & North Africa, North America, South Asia, Sub-Saharan Africa

(3) Country

Outcomes

The seven main outcome categories are as mentioned below and they are plotted against following indicators:

1. Health
2. Healthy development
3. Learning and development
4. Risk factor reduction
5. Safety
6. Equity
7. Economic impact

Table 2: Outcome categories and sub-categories

Outcome Category	Outcome sub-category
Health	
	Mortality
	Morbidity
	Disability and childhood illness
	Immunization coverage
	Mental health and psychosocial improvement
	Nutrition
Healthy development	
	Antenatal and postnatal care including breast-feeding
	Cognitive development
	Utilization of health services like immunization, child care
	Gender roles/decision making
	Diet and physical activity
	Parent reported-behaviour change
Learning and development	

	Enrolment
	Attendance
	Dropouts and truancy
	Learning and achievement
	Social skill development
	Quality of education
Risk Factor Reduction	
	Maternal smoking
	Contraceptive use
	Alcohol abuse/substance abuse
	Childhood injuries
	Hand washing
	Clean environment
Safety	Child abuse and neglect
	Homelessness
	Sexual (child trafficking)and physical violence in children
	Child rights
	Child marriage
	Child labour
	FGM prevalence
Equity	Equity
Economic Impact	Cost-benefit
	Cost-effectiveness
	Formal savings

Study designs

The mega-map will include only systematic reviews and evidence and gap maps of effects of interventions. The key characteristics for a review to be included as a 'systematic review':

- A clearly stated set of objectives with pre-defined eligibility criteria for studies.
- An explicit, reproducible methodology.
- A systematic search that attempts to identify all studies that would meet the eligibility criteria.
- An assessment of the validity of the findings of the included studies, for example through the assessment of risk of bias.
- A systematic presentation, and synthesis, of the characteristics and findings of the included studies.

Process for developing the framework

The framework has been developed through the following process:
Stage 1: Initial framework will be constructed through a review of strategy and policy documents.

Stage 2: Discussion through external consultation with (i) subject experts in the area of child welfare, (ii) UNICEF staff, and (iii) NGOs working on improving child welfare in low and middle income countries. These will be the key stakeholders.

Stage 3: Piloting framework with included systematic reviews from 3ie (International Initiative for Impact Evaluations) database on child welfare interventions.

Stage 4: A full systematic search for identifying systematic reviews will be conducted after the pilot phase, with revisions to the framework if needed.

Evidence and gap map authors

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Roles and responsibilities

• Content expertise:

Kerry Albright who has experience regarding use of evidence across all of UNICEF's policy areas.

Howard White who has published papers, including reviews and impact evaluations, on various aspects of child welfare.

• EGM methods expertise:

Ashrita Saran and Howard White have previous experience in systematic review methodology, including searching, data collection, and theory-based synthesis, which means they are proficient in carrying out the various processes in an EGM, such as search, eligibility screening, quality assessment and coding. They have undertaken an overview of approaches to mapping in a range of organizations. Jill Adona is experienced screener and has previously worked on Campbell Collaboration research projects.

• Information retrieval expertise:

Ashrita Saran has training in designing and implementing search strategies.

Funding

Potential conflicts of interest

No conflicts of interest.

Preliminary timeframe

1.1.1 Phase 1: Systematic reviews from 3ie database: completed

1.1.2 Phase 2: Full systematic review search: completed

Phase 3: Grey literature search: January 2019

Protocol: January 2019
Coding: February 2019
Report writing: March 2019

References

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